

The State of Health System(s) in Africa: Challenges and Opportunities

As study after study has pointed out, the health care systems in Africa pay little attention to the critical interface between education and good health, especially when it comes to the education of women and mothers, who are the primary line of defense against child diseases, and perform simultaneously most domestic chores and critical agricultural activities. While many medical educational institutions on the continent tend to perpetuate, at times, skewed and irrelevant Eurocentric health training, the national pyramidal health structure, weakened at the village level, and disproportionately favoring the provincial and national hospitals, gives the illusion that rural areas are well-served, when in actuality they are not. This chapter endorses the restrengthening of an uncompromised health care system to make it effective and efficient for both rural and urban areas; one that finds ways of trimming financial and human resource waste; revamps the institutions that train health care and service providers to make the system responsive to the real health needs of the people and not just the wealthy; one that compensates physicians just as civil servants; and aligns the educational system with targeted and expected measurable health outcomes.

However, when all is said and done, primary health care still remains the best answer to disease as it provides the basic preventive strategies that render the system cheaper, reducing, in the process, the rate of child and maternal morbidity and mortality—two of the most preventable outcomes that can prolong life expectancy at birth. By being less expensive, primary

health care is affordable and allows access to expected quality health care for the majority of the population and not only to the wealthy minority and its families. Discussed in this chapter are also the eight Millennium Development Goals (MDGs) which virtually all countries of the world and organizations, totaling 189 countries, including 147 heads of state and government in September 2000, pledged to reach by the year 2015. Three of these, Goals 4, 5, and 6, child mortality, maternal health, and disease prevention, are related to health, without, however, minimizing the other goals because, as is clear with poverty, they all impact both national and global health.

Therefore, this section highlights and summarizes the overall successes and challenges of the health systems in Africa, and is followed by a discussion of the strategies needed to improve the health conditions of the Africans. A health system that functions properly must have the necessary ingredients. These hinge on a multiple of financial, social, economic, environmental, and workforce resources, and a leadership that is committed, with a vision that focuses primarily on the people, particularly the poor, the sick and the disabled, and, through various initiatives, encourages change in individual unhealthy behaviors—all factors that render health difficult and complex to manage. The United Nations describes a health system as a structure that includes “all actors, organizations, institutions, and resources whose primary purpose is to improve health... Their primary goal is to promote, restore or maintain health, but they also aim to be responsive to people’s legitimate expectations and [are] financially fair” (*African Region Health Report 2013*: 106).

The prescription for improvement of health systems in Africa, according to the WHO, the World Bank, USAID, the International Monetary Fund (IMF), and many other international organizations and foundations, such as the Bill and Melinda Gates Foundation, will have to include: a more balanced, horizontal approach to disease; focus on prevention, education, and awareness of the mode of transmission or exposure to both infectious and chronic diseases; an integrated approach to health, involving whole sectors of government, such as the ministries of health and the ministries of education; transportation and infrastructure; law enforcement; water and sanitation; food security and housing; the sharing of information while stressing the same general health goals and appropriate strategies; self-efficacy in the management of disease; a scaled down reliance on expensive medical equipment that only serves the rich and the families that can afford it, who often “overstretch the workforce”; more attention paid

to the real needs of the people through proper retooling of the health personnel; accurate diagnosis of disease, as Botswana has done in monitoring and screening for HIV (here, screening increased from less than 10% of the population in 2000 to 90% in 2014); and systematic increase of children's immunization against diphtheria, measles, and hepatitis.

Other important elements include: focusing on providing primary health care rather than on acute diseases, as Ethiopia has successfully done, reaching 80% of the population in 2014—a significant improvement over previous years; increasing mobile units to reach the people and not compelling all to come to the health centers; and, according to some, employing the workforce personnel from neighboring countries, who might be paid salaries by their own governments but provided with allowances and bonuses by the host state, as done in South Sudan. Important also would be creating access to secondary care treatment in emergencies provided by specialized physicians; using, to the extent possible, the most modern technologies for the collection of accurate data, storage, and analysis; utilizing telemedicine to reach remote areas, as India has done recently; placing less reliance on private donors given the economic uncertainties and the fact that most tend to approach disease vertically; empowering women and communities; instituting universal insurance coverage; increasing local funding beyond the 15% recommended by the 2001 Abuja Declaration to reach the 2015 target MDGs; and empowering but also regulating local health care entrepreneurs and pharmaceuticals that would produce generic drugs locally, thus reducing the high cost of medicine. In Africa, drug costs have which has varied from city to city, from region to region, and from country to country, making it difficult to rationalize the system continentally. In fact, wherever regulations exist, they are barely enforced (*Africa Region Health Report 2013*: 114).

How have health systems in Africa following colonial rule performed over the decades? Of the 54 African countries that pledged to increase the health budget to 15% from 4 to 5%, seven have achieved the goal, but, to do this, the majority have had to rely heavily on international donors; seven have actually reduced their budgets, forcing citizens to pay almost half of their health services out-of-pocket or with as much as 90% of the cost in some countries. Even though Africa accounts for 11–13% of the world population, its disease burden is 24% and Sub-Saharan Africa “commands less than 1% of global health expenditure” (*African Region Health Report 2013*: 13). One may also note that, currently, while HIV/AIDS prevalence has gone down among adults aged 15–49 years, as low

as 1% worldwide, on the continent of Africa, the overall prevalence rate is 7%. These conditions certainly call for the allocation of more resources because poverty and ill health go hand-in-hand. We can also add that 76% of Africans live on less than \$2.00 a day, and 46.5% on less than \$1.08 a day. Over the past 20 years, the continent has seen its poverty rate spike, while in East and South Asia, the rate has gone down. Moreover, between 1981 and 2001, Africa's GDP decreased by 13%, doubling the number of people living under less than \$1.00 a day from 34 million to 64 million people 64 million from 34 million (*African Region Health Report 2013*). This number remained static until 2014. Obviously, these bleak figures do not speak well of the health systems currently operating on the continent of Africa, even if one or two of the eight MDGs might have been reached by a handful of countries in 2015.

The following observations, made by Wendland in Malawi, dramatize the state of the health systems in most African countries. Describing one hospital in Malawi, she wrote (2010: 151–152):

“Inside, especially on a steamy day, you would probably be struck first by the smell: a distinctive compound of sickness and sweat, clothes washed without enough soap, dried blood and fresh blood, death and Jikbrand bleach solution. If you walked down a hallway toward one of the wards where you would be working soon, your feet would slide a little on the concrete floors, worn shiny and smooth by thousands upon thousands of feet. Red plastic signs hanging from the ceiling warned Osalabvula—Oslangolola [No Spitting, No Making Noise]...The rooms were lit only by the open windows during the day to save on electric bills. The high ceilings and concrete walls made the space feel cavernous despite the crowding, and amplified the moans of pain, the keens of grieving, the squeak of medicine trolley, or the conversation and quarrels of families clustered near the beds.”

This major hospital had no recovery rooms for patients. Under such dire circumstances, one asks, how can a “sick” hospital cure the sick?

Most revealing of the state of the health systems in Africa are the results of a study sponsored by the WHO Regional Office for Africa—the International Alliance of Patients' Organization (IAPO)—that published in 2009 a report on the state of Africa's performance on the MDGs covering the period 2002–2007. Unable to get the required data from most African countries, the IAPO could only use five: Malawi, Namibia, Kenya, Uganda, and Zambia and assessed the state of the six health systems building blocks, namely: (1) leadership and governance, which assess the legal

framework of national management, health sector management, national institutional framework for multisectoral management, and components of national programs on health sector management; (2) sustainable financing (national and sub-national strategies for financing health sector management); (3) health workforce (human resources for the health sector); (4) medicines and vaccines; (5) information (information management systems for risk reduction and emergency preparedness programs, information management systems for response and recovery, and risk communication); and (6) service delivery (response capacity and capability, EMS system and mass casualty management, management of hospitals in mass casualty incidents, continuity of essential health programs and services, logistics, and operational support functions) (World Health Organization 2012: 1–30).

Below is an expanded summary of the five country study of the six areas or building blocks that apply to all health systems of the world. Specifically, the study revealed that, while Malawi, Namibia, and Zambia might achieve the MDG on measles immunization target by 2015, only Malawi and Zambia were likely to make progress in reducing the under-five mortality rate, and none of the African countries was on track to reduce maternal mortality by an annual average of 5.5%. While Namibia was making progress in its training and employment of qualified birth attendants (Tumusiime et al. 2012: 1), Chad and Zimbabwe had the worse maternal mortality among the 12 countries that have the highest maternal mortality rates in the world. The study also pointed out that, even the five countries that had the most relevant and most adequate information suffered from several shortcomings making their health systems ineffective: absence of policies and guideline on the health goals; shortage of human resources; shortage of medicines; lack of attainment of the target of 15% increase in the health budget as agreed at Abuja in 2001; a not fully utilized and fragmented system; and inadequate health service coverage.

The researchers added: “Overall, there is inadequate progress towards achieving the selected MDGs impact indicators in the five countries, against a background of non-conducive health sector policy environment and inadequate resources and service coverage. Achieving the MDGs will require timely national refocusing on health sector policies and commitment to health systems strengthening” (Tumusiime 2012: 1). Further analysis of each of the six health systems building blocks found that all five countries, except Malawi, had national health policies, as well as national health sector strategic plans or programs of work, and that all had incor-

porated the MDGs in national policies and plans. On sustainable health financing, the study revealed that financing had remained stable in the five countries since 2002, but notable was the fact that Malawi and Zambia had increased the budget to over 15% as pledged. Out-of-pocket expenditures, as a percentage of private expenditure on health, “varied from 5.7% in Namibia to 80% in the year 2006” (Tumusiime 2012: 1–3). Kenya’s and Namibia’s public health services [had] a policy of applying user fees at the hospital level with the former exempting under-five children. Uganda abolished user fees in 2001, whereas Zambia abolished them in 54 selected rural districts in 2004. Malawi did not apply user fees, at all, for health.

According to Karla Meursing, IMF conditionalities or structural adjustment programs had a direct negative impact on “both the accessibility and quality of public health care” in Zimbabwe, resulting in a fee increase to Z\$50 for out-patient treatment, while raising the cost of one day admission to the hospital to Z\$200 (Meursing 1997: 39). Zimbabwe’s health system, for example, was doing extremely well during the 1980s, when primary health care was a priority and hundreds of health facilities were built. In fact, the government aimed at building so many health centers that no Zimbabwean would have to walk more than 10 miles to the next health center. By the early 1990s, in fact, all citizens, even in the rural areas, did not have to walk more than 0.5 miles to the closest health facility (Azevedo et al. 1997). In 1991, however, Zimbabwe accepted a loan from the IMF, with the required structural adjustment programs, and introduced user fees. That was enough to change the system and make life miserable for most Zimbabweans. Structural adjustment programs also resulted in billions of dollars of debt for Africa, some of which had to be forgiven for such countries as Burkina Faso, Mali, Mauritania, Mozambique, Tanzania, and Uganda, because African governments were finding it more and more difficult to abide by the terms of the loans, even at interest rates as low as 4% per annum. Today, 34 of the 42 indebted countries continue to be in the African Region. In Zimbabwe, IMF loan acceptance also led to a rise in the price of all imported drugs and hospital equipment, making them four times more expensive partly due to devaluation of the currency. At the time, Media Guild argued that user fees and the higher cost of essential drugs resulted in a lower rate of preventive and curative care the poor needed and an increase in the number of deaths (Media Guild 1990s). User fees for rural areas were later terminated but the scarcity of first line drugs and qualified health workers continued.

Regarding the workforce, overall public sector vacancies reached 27% in Namibia and 49% in Uganda in 2008; and, in Zambia, the number was 50% and 77% in laboratory staff and nurses in 2006 and 2008, respectively. The study notes, however, that the vacancy rates were worsened by recruitment freezes in Kenya and Uganda in 2005 and 2007, respectively. Disturbing was the fact that, in Namibia, in 2008, most of the doctors, dentists, and pharmacists were in private practice and served only about 15% of the population, mostly in urban areas. For all five countries, most of the resources favored urban populations, especially in Zambia and Uganda. Availability and provision of medicines and vaccines, including oral rehydration salts, Coartem, Cotrimoxazole, measles vaccines, tracer drugs and first line medicines, such as anti-malarial drugs, were a major problem in all five countries, as some regions did not have 50% of the supplies needed.

In Malawi, Amoxicillin capsules were out of stock for an average of 134 days in district hospitals compared to 70 days in other hospitals in the country in 2008 (see Tumisiime 2012: 4). Wendland (2010: 176), describing the conditions of one hospital in Malawi, wrote:

The buildings were there, the doors were open, but it was often hard to see what went on inside as medicine. Urgent surgeries were postponed indefinitely for lack of suture. Critically ill patients were warehoused without treatment and often without diagnosis until they died, or until their families took them home in despair. Nutritional rehabilitation units had no food. Hospital and clinics could not count on long-term allocation of the most basic resources, including human resources. Students held the government responsible for the failure of the allocation; and with increased clinical experience, most came to see the national economy as pathogenic and the government as pathological: 'not normal'. (Wendland 2010: 182)

Regarding data and information, all five countries had a health information system "as the main source of routine health data." Thus, all five had a relatively satisfactory reporting system: Namibia had reached 80% of timeliness and completeness of national reporting of disease surveillance data from its districts; Zambia's record was 99% in 2007; in Uganda, 83% of the districts provided weekly surveillance reports to the national office, but only 56% did this timely. On service delivery, the patterns of the five countries were interesting. In Namibia, 40% of the population lived within five kilometers from a health facility in 2008; in Malawi, the number was 46% in 2004 and 50% in 2008; and 75% in Uganda in 2008. Measles immunization showed "stagnation or little increase in coverage" in all five

countries. Important was the percentage of children under-five sleeping under insecticide-treated bed nets in the five reviewed countries: 4.6% in Kenya in 2003; 9.7% in Uganda; 22.8% in Zambia; and 23% in Malawi (Namibia's figure not provided) (Tumisiime et al. 2012: 6).

The study concludes by noting that the researchers had verified “varied and inadequate progress towards achieving selected MDG indicators in the five reviewed countries against a background of non-conducive health sector policy environment, underfunding, shortage of human resources for health (HRH), unavailability of medicines and vaccines and inadequate service coverage,” adding that “meeting the MDGs requires urgent re-focus of national sector policies and commitment to improving all health system building blocks holistically” (Tumisiime et al. 2009: 9). Overall, the study further stressed, first, that “ineffective interventions crippled the systems,” characterizing them as “unable to scale up implementation of the interventions” and, second, that Sub-Saharan Africa was trailing behind all other continents in its attempt to meet the MDGs in health. Even though the study was completed years ago, the situation has not improved dramatically, as this work purports to show.

The authors of the study cited had hoped that the 1985 Ouagadougou Declaration on Primary Health Care and Health Systems would “provide an opportune framework to Sub-Saharan African countries to scale up health interventions and accelerate their progress towards meeting the MDGs in 2015.” If availability of a robust data collection system and analysis for decision-making is one mark of a good system, it is likely that most of Africa, at least prior to 2009, was operating at a snail pace to improve the health conditions of its people. On the issues involved in the first health system building block, leadership and governance, Africa appeared too weak to advance the health goals forward by underperforming, regardless of the resources it was able to master. Even if some of the MDGs might have been achieved by 2015, it remains clear that Africa's leadership is failing when measured against the health outcomes in other continents. To the weakness of the health systems must be added the ineffective prevention of infected blood transfusions in the hospitals, especially those in the countryside, which are almost always understaffed and under-resourced on such items as diagnostic equipment.

Blood transfusion problems are common in Africa but this is not unique to the continent—it has been a worldwide phenomenon, including the US, especially in the early years of the HIV/AIDS epidemic. It is a concern that should always be present in the effort to collect and administer non-compromised blood transfusions. As recent as 2006–2007, the Kenyan

government admitted struggling with the problem given the high rate of HIV infections. The country's Ministry of Health confessed:

The demand for blood has continued to outstrip the supply, leading hospital's reliance on family donations. The source of blood does not always guarantee the availability of blood in sufficient quantities in a timely manner. The blood is also three times more likely to test positive for infectious agents than is blood sourced from voluntary donors. A survey conducted in 2001 showed that there were 181 facilities in Kenya collecting and transfusing blood. This has posed a challenge in the logistics for distributing testing reagents, equipment maintenance, staff training and quality monitoring. Despite the risks posed by transfusion of transmitted infections [further notes the government], the number of inappropriate transfusion has not shown any downward turn. (Ministry of Health of Kenya 2006–2007: 39)

In fact, in 1994, only 10 out of 46 member countries in Africa were in a position to guarantee safety of blood transfusion at hospitals. This number grew to 14 in 1999 regarding countries that had national policies on blood transfusion policies, which were, however, sporadically enforced. Among these countries, most of the blood collected came from volunteers and was screened for HIV, viral hepatitis B and C, and syphilis. Currently, however, 12 countries have health systems that still do not have blood transfusion assurance (*African Region Office Health Report 2013*: 114–117).

HEALTH SYSTEMS ISSUES

Martyn Sama and Vinh-Kim Nguyen hold the view that all societies have had health systems “of *some sort*” as long as people have tried to protect themselves against diseases. Systems, they say, can be defined as those traditional practices, “often integrated with spiritual counseling and providing both preventive and curative care,” which have “existed for thousands of years and often co-exist today with modern medicine,” often undergoing consistent changes (Sama and Nguyen 2008: 3). Their thesis is the more relevant as they refer to African stewardship and the crisis the health system is experiencing virtually everywhere on the continent. They point out that effective stewardship is the government's key role in oversight and trusteeship, which involves formulating health policy, defining the strategic vision clearly, and articulating the direction the leadership wishes to see the health system follow. This is strengthened by exerting influence and vocalizing in word and action the approaches to regulations guiding the health system, and collecting and using intelligence (data and information)

effectively. In sum, stewardship implies vision, “overall system design and policy formulation; setting priorities, and “performance and impact assessment for outcomes, promotion of health and advocacy; and establishment of norms, standards, and ethical framework.” In their assessment, the two authors note that African systems are among the “most bureaucratic and least effective managed institutions in the public sector. The ministries are fragmented with vertical programs, or ritual chiefdoms, dependent on certain donor funding.” The description could not be more accurate to anyone who has visited an African hospital to be treated, as chapters in this volume emphasize, ranging from an uncountable absenteeism to unauthorized financial charges by doctors that circumvent the official care provision in public and private health facilities to delays of treatment on alleged equipment failures. Sama and Nguyen thus further sharpen their analysis of African health systems and their stewardships:

If African health systems are ungovernable, it may be in part because powerful international donors work at cross-purposes, setting competing agendas, cycling policies at a rate that defies bureaucratic assimilation, fragmenting health efforts, and undermining local systems of accountability... There is recognition that accountability, transparency, and vigorous citizenship participation are essential to achieving a viable society, sustainable economic growth, and equitable distribution of benefits and risk of growth. *Yet, African countries are characterized by persistent and in many cases worsening social, economic, and gender, and health inequalities.* (Sama and Nguyen 2008:10) (author’s emphasis)

Still, according to the two researchers, problems related to health in Africa include “corruption in hospitals, transparency Health Care (PHC) delivery, citizen participation in decision making regarding health care, and the empowerment of traditional birth attendants among others.” Their Achilles’ hill is captured when Sama and Nguyen write, which is absolutely applicable to Africa’s management of the health system:

Health systems in Africa largely surpass what is accessible through the public system to encompass a patchwork of providers, whether these are biomedical entrepreneurs, churches, NGOs, or ‘traditional healers. Health systems also encompass shifting systems of social solidarity that insure against risk:

there may be private health insurance for a few and some free health services here and there, but it is mainly extended social networks (which may be more or less based on varying notions of kinship) that insure against health risks. (Sama and Nguyen 2008: 10)

A major constraint of Africa's health systems is the user fee issue. In Kenya, for example, the introduction of user fees, also known as "cash and carry approach," had a negative impact on the health of the population, even though, to offset the individual costs, the government allowed several exemptions and waivers for the poor, those who were enrolled in family planning, children under-five, patients with sexually transmitted diseases, and other categories (Alfred Anangwe 2008: 44). Yet this did not help the situation, even with the efforts to expand insurance coverage to as many people as possible, including those without employment. This study also revealed that there were several and serious gaps in the Kenya health system, estimated at close to 20–35% of the total population, namely, only those who contribute to the National Health Insurance Fund (NHIF), while the rest qualify only for "more traditional insurance, and need to be enrolled in some flexible risk-pooling schemes." The Kenyan health system, like most in Africa, suffers from the following serious shortcomings (Anangwe 2008: 57):

1. Inadequate NHIF, which needs more reforms to include almost all Kenyans, that is, universal insurance coverage, since insurance is guaranteed by the constitution, promoted by competition
2. Low benefits for in-patient care
3. Weak administrative mechanisms, made cumbersome by the unnecessary bureaucracy every level
4. Lower expected returns from any health investments made
5. Lower claims at public health facilities
6. Accumulated "huge surpluses" that have no connection to the "claims volume"
7. Lack of transparency "in the management of and accountability of funds, among others."

This is the context in which a health crisis in Africa is frequently mentioned today. Above all, however, the lack of transparency and accountability is a major impediment against the improvement of the system, as

administrators and doctors virtually do what they wish, which just meets silence from those who manage the Ministry of Health and the government. When corruption, as in Cameroon, is added, then the patient faces a really ineffective and unfair medical system. Besides the inadequacies outlined above, experts add the following:

1. Inability to entice the health workforce to stay and work in Africa
2. Reliance on the theory of macroeconomics, thus falling prey to aims of the IMF and the World Bank's distorted policies that give little attention to the health of Africans
3. Reliance on medical theories and concepts of health inherited from the colonial past, which focuses on the individual rather than the community and the population as a whole
4. Lack of serious analysis and study of health implications of determinants of health by African scholars and ministries of health
5. Underdeveloped infrastructure, which pays lip service to access to potable water, the sewage system, hygiene awareness and implementation, especially in the villages
6. Non-Pasteurization of all dairy products
7. Poor nutrition for all, especially for mothers, pregnant women, and children
8. Inadequate use of better agricultural techniques
9. Provision of improved food to towns, most of which are a mixture of slums and opulence, located side by side
10. Lack of understanding that all sectors of life are linked to and have impact on people's health.

The reemergence of infectious diseases that Africa thought it had overcome such as Ebola, the coming of new epidemics such as SARS, and the "intractable" nature of the perennial HIV/AIDS, malaria, and tuberculosis, the increasing rate of non-communicable diseases such as the various cancers, cardiovascular diseases, and diabetes, called the second disease burden for Africa (infectious diseases being the first burden), and all the economic, political, and leadership shortcomings pointed out in this volume can only make one pause and wonder what will Africa look like in terms of health and poverty, inequalities, and health inequities by the year 2030. Indeed, the present picture of health does not ensure a good prognosis of the future, where, it seems, the more things change the same they remain. Many leaders in Africa and other parts of the world do not realize, as ECOSOC (2009: 32) has noted, that history shows that "...inequities in health are not the same

as inequities in health care. Inequities in health care are of vital importance, but the major determinants of the inequities in health are [found], as the UN Secretary-General once said, in the conditions in which people are born, grow, live, work, and age.” These therefore are factors that the leaders must always keep in mind. Perpetuation of the inequalities is partly the basis of the malfunction of the health systems in Africa today.

ANGLOPHONE AFRICA: HEALTH CARE SYSTEMS IN TANZANIA, UGANDA, AND KENYA

The following section highlights the pluses and minuses of selected representative countries in Sub-Saharan Africa that underscore the colonial legacy from Britain, France, Portugal, and Spain, and is designed to simply illustrate the general findings of the nature of the national health systems in Africa. This approach will reveal the intractable colonial health legacies Africa inherited from the colonial past. We may start with the three former members of the East African Community, which were supposed to coordinate health strategies and goals—Tanzania, Kenya, and Uganda—and their devastating impact, especially on the poor. It will look at the resources and the current structure of their health care systems, beginning with Tanzania. Tanzania, a country of 44 million, is said to follow a pyramidal model or a bottom-up approach, which begins at the village level and reaches the apex at the most advanced, but also most expensive, approach to providing health care. Obviously, if such a system is not well handled, it can ruin the effectiveness and efficiency of the whole health care system and make it inaccessible to the poor, who often constitute the majority. The UN and the World Bank define poverty in the developing world as a person’s condition characterized by an income that is \$1.50 or less a day (others say less than \$2.00 a day). For the sake of simplification, in this work we use the rate of \$2.00/day or less for the poverty level.

Tanzania’s health care structure begins with the thousands of village health services scattered throughout the country at the bottom, superseded, in ascending order, by dispensary health services, district hospitals, regional hospitals, and referral and consultant hospitals at the top (Ministry of Health and Social Welfare Services, Tanzania 2013). The Village Health Services, built as the first line of defense against ill health and disease, serve the most remote and rural areas of Tanzania, mostly poor and isolated, providing only the most basic preventive primary health

care, which can be dispensed even at home. This level of facilities is staffed by two village health workers, who are selected by the village council and briefly trained to respond to villagers' non-threatening health conditions. The dispensary health services, or the second level, provide more advanced preventive care catered for localities that have a larger population ranging from 6000 to 10,000. The third level of the pyramid, the health center, offers more advanced services to up to 50,000 people, comparable to the population of one administrative division, and are sources of patient referrals to the next level, namely, the district hospital (Ministry of Health and Social Welfare 2013). These health facilities have x-ray equipment and an advanced laboratory component, perform surgery, provide emergency obstetrics care, and admit in-patients and out-patients. However, the major weakness of the health system in Tanzania, as pointed out by knowledgeable analysts, is that it is run by assistant medical doctors (who are nothing but glorified physicians), clinical officers with just two years of training, one clinical officer, and a few registered nurses.

The district medical officer is usually a medical doctor, but, interestingly, must also have a master's degree in public health, which is an innovative idea in the African setting, not explicitly stated in Kenyan and Ugandan regulations. Required employees at the district hospitals include one environmental health officer, a records officer, a dentist, and a pharmacist. Despite their theoretically impressive health care set up, the district hospitals, just as the rest of the health care facilities and services, are overwhelmed by the number of people that come for treatment from throughout the district with immense health needs. Population pressure brought to bear by the country's fertility and its demographic growth estimated at close to 3% annually make the health situation difficult to manage. The resources are simply mishandled and cannot meet the needs of so many people. With government backing, many of the district hospitals enter into an agreement with religious organizations and receive assistance from the state. Each region has its own hospital, which has a good number of highly trained specialists and offer more advanced and comprehensive services than the dispensary health services.

At the apex of the pyramid or system are the country's most advanced health services facilities, the referral hospitals, which are also medical training schools. Five of these exist in Tanzania: Muhimbili National Hospital designed for the eastern zone of the country; Kilimanjaro Christian Medical Center for the northern zone; Bugando Hospital serving the western zone; Tumbi Hospital also in the eastern zone; and Mbeya Hospital offering services in the southern region. The Ministry of Health and Social Welfare

oversees all hospitals, even though the system has been decentralized, and has several departments that supervise critical programs, some permanent, and some temporary, such as National AIDS Control, Reproductive Child Health, TB and Leprosy, and School Health. Centralization through the Ministry of Health and Social Welfare has been one of the weaknesses noted by the experts. One expert observes that among other weaknesses, the strategy of primary care is fragmented and the management system is not optimal because of excessive centralization (Yaya and Ileka-Priozeau 2010: 65).

Two general and intrinsic features of the pyramidal health care system can be discerned in Tanzania: Decentralization, which started in earnest in 1994 as a way of improving health care “access, quality, and efficiency” for all citizens; and non-discrimination in principle. However, co-payment, the insurance requirement, and the emerging physicians’ private practice have worked to the disadvantage of the poor, children, and pregnant women, who, even though entitled to free treatment, are often required to prove that they are poor. This requirement creates stigma and discourages most non-educated rural populations from seeking assistance. The user fee has been instituted, withdrawn and reinstated, and, at one point, the government even tried to outsource some of the health service delivery (Brennell and Breannon 2012). One must also note that the user fees get larger as the pyramid reaches the top. Government employees, who account for 6% of the population in Tanzania, must buy a plan with the National Health Insurance Fund (NHIF) at the rate of 6.0% of their income. The informal sector in rural Tanzania may voluntarily pay the premium to the Community Health Fund (CHF), an institution that also insures the indigents and those who are unable to buy insurance, as well as people “less likely to get treatment due to user fees” (Wong 2013). The remaining population is forced to resort to the service of traditional healers, which is replete with cultural and curative “baggage.”

The Tanzanian health system also suffers from a number of problems, such as absenteeism, which, at times, may affect 40% of the workforce; low morale among the lower level personnel due to unprofessional treatment received, and other causes, such as lack of participation in decision-making; unfilled vacancies because the system finds it hard to hire a qualified health care force (e.g., as one report notes, only 31% of the positions are filled with qualified individuals); lack of equipment and upkeep due to cost; unreliability of supplies, which may not exist, may have expired, or are over exposed to heat; poor supervision; unreliable personnel that often leaves a number of health facilities without supervision for hours; sub-standard salaries for physicians and health care providers; and overcrowding and poor maintenance of facilities, which are often run down and

unclean, presenting almost insurmountable obstacles to good health care and to workforce comfort and safety, particularly at the lower levels of the pyramid. Some statistics reveal that 50% of the health care facilities have no electricity and most do not have running water, which is not uncommon in other parts of Africa. Of Malawi hospitals, for example, where he practiced medicine carried out medical and anthropological research, Wendland (2010: 1–2), writes poignantly of the conditions that would make the reader shed tears:

I struggled with what it meant to practice medicine in a part of the world where drugs ran out, equipment was scarce, one or two nurses might be responsible for a ward of sixty incredibly sick patients, and many important diagnostic and therapeutic measures were completely unavailable because of the price tags they carried. No CT scanners. No ultrasound machine. No chemotherapy drugs except methotrexate, and then only if you could get your patient signed up for a special study happening in Lilongwe, four hours away by bus (in the unlikely event that the patient could afford a bus ticket and that the bus did not break down). No radiation therapy at all. No newborn ventilators so babies born before thirty-two weeks gestational age rarely survived.”

The structure of the health care system in Kenya, which serves a population of over 44.6 million, is not much different from that of Tanzania and Uganda. It is also pyramidal and consists of dispensaries, health centers, sub-district hospitals, district hospitals, assisted by thousands of private clinics (7000 in 2011), provincial hospitals, national hospitals, and nursing homes staffed by nurses and physicians. The dispensary, staffed by trained and registered nurses, is the least equipped of all and provides the most basic out-patient care, such as dispensing malaria pills and injections and common flu medication, and refers the most serious cases to the next level of care provision. The health centers, under clinical officers or nurses, are designed to serve at least 8000 people, providing some (preventive) primary health care, dispensing such basic services as immunizations, and are staffed by clinical officers, nurses, health administration officers, pharmaceutical and medical technologists, public health officers, nutritionists, and the necessary day-to-day supporting staff, such as drivers and housekeepers. These health centers are much more complex in organization and treat out- and in-patients, perform all necessary tests in laboratories, have maternal and child care wings, perform minor operations, such as circumcision, and have facilities where students are trained to perform care

responsibilities, and an attached pharmacy. These two characteristics do not seem to exist in Tanzanian health centers.

The next level of care in Kenya is the sub-district hospital, which is not very different from the health center, except that it performs more advanced surgery, such as Caesarian sections, and is overseen by a medical officer and registered nurses. Below the provincial level, lies the district hospital, which serves as a referral for all lower level health facilities, is equipped to provide “comprehensive medical and surgical services,” and is managed by medical personnel. The latter are not a feature of the Tanzanian health care system, at least not in title. The next level of care is provided by the country’s eight provincial hospitals, which are referrals for the lower level of the health care pyramid. These are regional centers and provide more advanced and specialized intensive care, such as life supporting care, along with specialized consultations and treatment. At the top of the pyramid come the two national hospitals, Moi Teaching and Referral Hospital at Eldoret City, Rift Valley Province, and Kenyatta National Hospital in Nairobi, where all primary, secondary, and tertiary care is available.

This apparently well-organized health care system, at least on paper, is managed at the national executive and parliamentary level by the Ministry of Health (MOH), led by two Ministers, the Minister for Medical Services, and the Minister for Public Health; the Office of the Director of Medical Services; a Sub-District Hospital Management Board; and a District Medical Officer of Health, with several layers of officers, including the Health Center Management Committee, the Medical Council of Kenya, the Kenya Medical Supplies Agency, the Pharmacy and Poisons Board, and the Kenya Medical Research Institute. Health Insurance through the National Insurance Fund (NHIF) is mandated for all salaried Kenyan employees but voluntary membership for those who are self-employed is accepted, just as is the case in Tanzania. Currently, the fees range from 160 to 320 Kenyan shillings or between \$2.00 and \$4.00. The state’s future plan is to match payment against a person’s salary on a percentage basis. When members and dependents fall ill and are admitted into an accredited hospital, they pay only the balance after a rebate is figured out, which may range from 400 to 2000 Kenyan shillings (\$5.00–\$22.10) a day. Kenya is seriously moving to a universal insurance coverage based on income, as the constitution of 2012 still maintains that “every Kenyan has a right to quality and affordable health care, and recognizes the role of the government in removing barriers to access.”

In Uganda, a country of 37 million people, the nomenclature of the health care system and its functional properties differ from those in Tanzania and Kenya. At the lowest level, the country operates the village health teams or community medicine distributors, who are volunteers, some travelling on a bicycle, and provide basic medical advice to patients and refer them to the appropriate health facilities, unlike in Kenya or Tanzania. The next level is the health center II in each parish, which caters for a few thousands of people and treats such common diseases as malaria and flu, and provides antenatal care. On paper, it is staffed by a nurse and a midwife. These health facilities admit in-patients. The health center III is located in a sub-county and is run by a staff of 18, has a laboratory, and is supervised by a clinical officer. The health center IV is designed to serve a county and has men, women, and children's wards, admits in-patients, and is run by a senior medical officer, an extra physician, and has an emergency operations theater. The next level is the regional referral hospital. At least 10 of these exist in Uganda and provide all services, including those found at the health center IV, and have specialized clinics and mental health and dentistry facilities, with several consultant physicians. In practice, these often function as "mini-hospitals." At the top of the Ugandan pyramidal structure are the three national referral and teaching Hospitals (Mulago and Makerere, in Kampala, and Mbarara in Mbarara City, Northwestern Uganda), which have the best physicians, many of whom are in private practice.

Despite the many advances Uganda has made in health, which seem to have overtaken those of its neighbors, Tanzania and Kenya (the latter for a long time considered to be the best in East Africa) the current problems here tend to be the same: poverty, high illiteracy, inadequate infrastructure, gross inequities in the distribution of health services, dependency on foreign donors, inability to sustain services, low pay and low morale among staff, absenteeism, paucity of specialized physicians, poor training, high rates of staff layoffs, and overloaded doctors and staff (see Kamweziga 2011). Also, in Uganda, the village level volunteer system is quite unreliable, and the heavy emphasis on a referral system may simply "pass the buck" to the next level; it also suffers from a lack of basic drugs, even for malaria. Furthermore, most ambulant health advisors do not have a bicycle and perform most of their work on foot. A few of the Health Centers II have no laboratories. At times, many do not have water and electricity or possess generators during emergencies. Also, level IV facilities often lack

an adequate number of physicians who, at times, must see 100 patients a day, as is the case in Tiriri (Kavuma 2009 Kwesigabo).

Data collection and utilization at the health facilities are likewise poor. Even though structures for data collection, reporting, and feedback exist at every level of the health care system, their level of functionality is marginal. At the primary health care level, where all data are captured and generated, there is still inadequate capacity of health workers in terms of skills to record accurate data, conduct the analysis, and effectively use the information for decision-making. The system is understaffed and carries a heavy workload. Supportive supervision for districts by MOH and district health teams for primary health facilities is also inadequate due to poor funding save for partners such as PEPFAR, USAID, and CDC, which channel donor funds to the national health care system and improve data quality. Data capturing and reporting is still largely paper-based, and only a few initiatives on electronic health management information system are underway but are donor-driven. What is needed is the strengthening of the capacity of the MOH and the district health systems through skills training, improving staffing, and regularly supporting supervision. Therefore, increasing funding with strict accountability for such health systems and improving activities are not an option but a priority. Along with the problems noted for the three Eastern African countries, the health care system faces many challenges daily, and Tanzania is illustrative of the situation. A 2012 study in Usokami, Tanzania, funded by the European Commission Development Fund and led by Joyce Nyoni, Professor of Social Work at the University of Dar-Es-Salaam, concluded by pointing to other shortcomings, some intangible and others tangible. Nyoni wrote:

While there is utilization and acceptability of the use of health services, it was noted that utilization of the health facilities was mainly skewed towards those residing near the health facilities. However, it was also noted that utilization of health services is much lower among the youths irrespective of the distance factor. Two main issues were noted to negatively impact upon contact coverage of health services, namely distance and poverty. In addition to the main factors mentioned were shortage of health staff and drugs and also lack of effective communication between health services providers and the community. (Nyoni 2012: 14)

It is important to remember that infectious diseases such as malaria, tuberculosis, sleeping sickness, yellow fever, and the emerging non-communicable diseases, including breast cancer and diabetes, are also

currently overwhelming the hospitals (see Kwesigabo et al. 2013), which increases the physicians' overload.

Dissatisfaction with salaries in Tanzania led to a major strike by doctors at national and some private hospitals for a week in March 2012, and left more than 10,000 patients stranded at hospitals and dispensaries. Muhimbili National Hospital alone, which employs more than 259 physicians, had some 2900 patients awaiting treatment for days. Nurses refused to show for work claiming that they could not do so without the presence of doctors. As a result, the Ministry of Health and Social Welfare had to deploy 67 doctors employed at the Ministry headquarters to temporarily replace the striking physicians. At first, former President Jikaya Kikwete told the strikers that they should rather quit their government jobs than strike. However, under pressure, a day later, he promised to raise the salary but only for those who were not involved in the strike—from the monthly salary of \$620 (500 British pounds at the current exchange rate) to \$727 (600 pounds) in 2012–2013. The doctors, however, were asking for an increase of up to \$2200 (1,761 pounds), plus allowances and bonuses. During the turmoil, the 1000 member Tanzanian Medical Association alleged that thugs at gun point kidnapped Dr. Steven Ulimboka, their Chairman, drove him to the outskirts of the capital, beat, and tortured him. One doctor claimed that he had treated the Chairman for damage to his finger nails. The President denied the allegations. Fortunately, the strike stopped within a week and salary negotiations resumed in earnest. However, this is not the first time East African doctors have led a strike.

Doctors' strikes in Kenya occurred in 1971, 1981, and 1984, and pay has always been one of the major issues of contention with the government. In 1971, Kenyan doctors demanded that they be paid as senior level administrators. The strike of 1981 resulted in the closing of the University of Nairobi and the arrest of some 300 doctors between May 7 and June 3, which led to many physicians' decision to move into private practice. The most recent doctors' strike in Kenya happened in December 2013, when thousands of patients were stranded at the hospitals in Narok North District Hospital, Ololulunga Hospital in Narok South, and Transmara District Hospital, indirectly contributing to preventable deaths. The patients suffered of diseases ranging from malaria to common cold, and from arthritis to sexually transmitted diseases. The situation was so serious that traditional healers were inundated with patients, and many Tanzanian healers made camp along the frontier, collected fees, and went to work. One of the Kenyan residents along the border said: "We cannot wait for

our people to die when we have traditional doctors, herbs and hospitals in Tanzania” (Sayagie 2013: 1).

In Uganda, strikes for pay occurred in 1989, 1994, and 1996. Medical students participated in the strikes with grievances ranging from poor facilities to overcrowding in the dormitories and failure of many students to pass the courses. In 1989, for example, only half of the finalists passed the exams and “the grades in 1990 were so poor that an inquiry blamed failures in pediatrics or ‘inadequacy in staffing, textbooks, and consultation, let alone of seriousness among the students’” (Iliffe 1998: 158). As Iliffe added, the tug of war between the state and the doctors has been constant, in which, for the physicians, the state was “both enemy, blocking their aspirations, and the protector against the latent hostility of the unsophisticated. The ambiguity was to remain until independence, and beyond.” In other words, there has been a love and hate relationship between the two. Just as in Kenya and Tanzania, many doctors have since chosen private practice, where their salaries might be as high as 2,000 pounds a year compared to that of the 1950s—that is, twice the government salary simply by “injection practice”—as was common saying—rising from 150 pounds in the 1940s to 420–720 pounds in 1952. Doctors in Uganda began entering private practice in the 1950s, the last decade of the colonial period.

This has happened in other parts of Africa. In Malawi, for example, during the 1990s and 2000s, doctors did earn a relatively decent salary that was good as that of the average “wealthy” citizen. Yet, physicians and medical students have always been dissatisfied with the salaries, as they compare themselves with the college classmates that went on to become lawyers or accountants (each requiring fewer years of training than medicine) or the politicians who determined their pay. As Wendland notes, they see their peers owning luxurious cars, living in large modern houses, and sending their children to school without ever worrying about the fees. They have also compared themselves to the physicians abroad, or to interns from the West who show up intermittently at the African hospital wards for a few weeks, perhaps as interns, then disappear “on a safari” or at “expensive lakeside resorts” (Wendland 2010: 161), thus adding insult to injury.

Financing the health care system has always been a problem for all East African countries, including Kenya, Uganda, and Tanzania, which still remain some of the poorest countries in the world. The situation has forced the governments to rely heavily on donations from international

organizations, religious and non-governmental, including the Red Cross, World Vision, and Catholic charities, among others, and from the US, through such agencies as USAID, PEPFAR, and the European Union Development Commission. Thus, Tanzania's 15% budget figure committed to HIV/AIDS prevention and treatment is deceiving in that most of the health funding came from donor contributions, especially the US. For fiscal years 2009/2010, the announced Tanzania Mainland budget was about \$684.3 million, but 36% came from donors, excluding the US off-year budget support of more than \$400 million. As one analyst notes, "when added, donor support amounts to over 55% of the national budget for health." Some programs are more dependent on foreign sources than others, such as the Tanzania Mainland HIV/AIDS initiative, which is 97% dependent on foreign generosity (WHO, Ministry of Health, Dar-Es-Salaam 2011: 7).

This clearly implies that, if donations were to start tumbling down, Tanzania would not be able to keep its pledges and sustain the progress it has already made. The hope is that the economic growth measured in GDP will continue to be as high as it is now—about 6.5%. Yet, in 2012, Tanzania was still ranked 152nd on the Human Development Index and in the lowest 10% of the world's economies by per capita income. The same situation applies to Tanzania's neighbors, Kenya and Uganda. The insufficient number of qualified physicians and the general tendency for them to choose private practice in the major cities—Dar-Es-Salaam, Nairobi, and Kampala—have been detrimental to the overall health care system and accounts for the overwhelming majority of doctors' choice of private practice to supplement their salaries. It is estimated that at least 52% of the total number of doctors in Tanzania practice medicine in Dar-Es-Salaam, where the ratio of doctor to population is 25 to 100,000, in contrast to the national average of 3.5 to 100,000 (WHO and Ministry of Health and Social Welfare 2013).

FRANCOPHONE AFRICA'S CHALLENGES: COTE D'IVOIRE, SENEGAL, AND RWANDA

A low middle income country with a population of 20 million, Cote d'Ivoire used to occupy an enviable position in the French West African Empire prior to and following independence. The vast fields of cocoa, coffee, and timber gave it a prominent status as a territory that had accepted, with apparent pride, French colonial traditions and history wholeheartedly.

Thus, along with Senegal, Cote d'Ivoire embraced Paris' vision of keeping the African possessions, even after independence, as semi-independent republics, as integral parts of a non-racial Francophone empire. This relationship with France was cemented by the strong leadership of the first President of Cote d'Ivoire, Felix Houphouet-Boigny, and his foreign policy. Houphouet-Boigny had served as Minister without Portfolio in the French Cabinet in Paris, which explains why, for a long time, Cote d'Ivoire remained the health showcase of French colonial policy in Africa. Unfortunately, the country is now besieged with serious health problems, particularly as a result of the 2010–2011 civil war, and weakened by a natural prevalence of tropical and non-tropical diseases such as malaria, yaws, yellow fever, meningitis, leprosy, trachoma, helminthiasis, elephantiasis, and, of course, HIV/AIDS. The latter has a prevalence rate of 4.7% in the country, especially among those aged 15–49, currently one of the highest in West Africa. However, vital statistics reveal that the country's high HIV rate is lower among men than women, about 2.9% and 6.4%, respectively. The war destroyed several hospitals and health centers, especially in the north of the country.

Cote d'Ivoire's health system has only one doctor per 10,000 people, and 40% of the people live below the poverty line, while one-fourth of the children are stunted from malnutrition and poverty. Vertical transmission of HIV to child remains as high as 25% in this former French colony. In 2010, 380,000 adults and 70,000 children lived with HIV/AIDS infection, about one-third of the children in the country. Yet, only 70,000 are on antiretroviral therapy, a treatment regimen that started during the 1990s (*Our Africa* 2013: 1–3). Life expectancy at birth in Cote d'Ivoire is among the lowest in Africa (50.5 years), with 40% of the people living in the rural areas (USAID 2013: 3). Death rates and demographic problems are camouflaged by the women's high fertility rate estimated at 5.25 children per woman, while under-five mortality is estimated at 107.6 per 1000 live births (2012), one of the highest in fertility rates in West Africa.

Cote d'Ivoire still follows the October 25, 1996 health system organization (Decree N.96—876), which created a three-tier or three-level pyramidal structure, that consisted of a total of 1389 health facilities in 2006 (more recent figures are not available), distributed as follows: 1357 in level 1, 17 in level 2, and 15 in level 3; private health facilities account for 1212 of the health facilities in the country, which must also follow the Ministry of Health and Public Health guidelines. The insertion of "Public Health" in the title of the Ministry highlights the importance Cote d'Ivoire places on public health.

The primary level facilities consist of rural health centers, urban medical centers, school and university health centers, urban community-based facilities, and specialization urban health centers. The second tier or secondary level includes general, regional, and specialized hospitals, and the only psychiatric hospital in the country located at Birginville. Over a dozen specialized health-related Institutes constitute the tertiary level. Despite the problems, the health system in the country has registered success in restoring some of the health structures destroyed by the war, especially in the north. To its credit, Cote d'Ivoire has one of the best data collection systems in Africa, even though health facilities do not follow guidelines regarding notification of HIV status post-test. Also, Cote d'Ivoire is not too dependent on foreign donations for health, as 87.5% no other region had% of the health care funding comes from the citizens' out-of-pocket payments, contrasted to 73.7% in the rest of Sub-Saharan Africa (USAID 2013: 3).

The country has also succeeded in improving maternal death rates from 508.3 per 100,000 in 1990 to 470 per 100,000 in 2010. The rate of immunization for one year-olds is relatively acceptable and understandable, although it stands at little less than 70%. In addition, as noted above, Cote D'Ivoire has at least one good psychiatric hospital, which is rare in Africa even today. Yet, like in other parts of Africa, the health system suffers from several deficiencies, including the following: 40% of the health workforce is concentrated in the Lagunas urban region, especially Abidjan, where only 24% of the people live; in 2001, no other region had 10% of the workforce. In 2004, the distribution of the workforce was as follows: Lagunas, doctors, 60%; nurses, 48%; pharmacists, 74%; laboratory technicians, 48%; social workers, 67%; and private health professionals, 25%. The concentration of facilities in the Lagunas urban region means that 76% of the population is under-served in favor of one region that houses the capital city, Abidjan. Furthermore, to underscore the weakness of the system, 81% of the hospitals have laboratory facilities but only 10% of the health centers or clinics have one. Regarding service delivery and free care, available prior to the 1990s, these were eliminated thereafter and restored in 2011 post-war Cote d'Ivoire.

Unfortunately, the process towards free health care in the country was abandoned again due to its high cost. The government has promised to introduce universal health coverage as soon as possible, which means that, for the time being, Ivoirians face a big bill to fight a huge disease burden. The rural health care is divided into three sectors: health center or health clinic (*centre de santé*), health posts (with no doctor), and health points

(*postes de santé*), which also have no doctors assigned. Health centers at the top of this lower level are provided with one or two doctors and between 15 and 20 staff members. Health posts, among the lower facilities in rank, are staffed by 4 to 5 health workers, while at the lowest level, the health points or posts (*postes de santé*) are managed by one or two health agents and one midwife, and have no doctor.

Moving to the health system of Senegal, which had a population of 14 million in 2014, one must stress the fact that this former French colony experiences almost the same disease environment as Cote d'Ivoire, that is, malaria, TB, schistosomiasis, trypanosomiasis, syphilis, meningitis, and cholera but has one of the lowest HIV/AIDS prevalence rates in Africa, about 0.9%, except for Casamance, a war theater a few years ago, where the rate is 1%. Senegal's health system is organized like that of Cote d'Ivoire, pyramidal in structure, with three levels: central, regional, and peripheral. The central level consists of the office of the Ministry of Health, health "branches, and related services." The regional level or the medical region refers to its local health system, while the peripheral comprises health districts, each having at least one health center and a network of smaller health facilities. In structure and distribution of health care, Senegal has local, community-based health facilities, intermediate level health centers, regional specialized health centers, and national level hospitals, services, and institutes, just as is the case in Cote d'Ivoire.

Senegal was one of the first colonies to benefit from the Medical Assistance Program established by the French in 1905, which provided free medical care, free consultation, free immunization, free maternal and child services for Africans, and emergency care for children under-five as well as free health insurance for them, strengthened by an accelerated combat against the epidemics of the time. Highlighting the disparities in health facilities distribution in the country, however, Senegal has 20 hospitals but seven are located in Dakar, the capital city, with all services concentrated where only 42% of the population lives; 70% of the doctors and 80% of the pharmacists and dentists are also concentrated here. Fertility is still high in the country—five children per woman—but 54% of the population lives below the poverty line. Maternal mortality is also high. The government sustains the health care system by contributing 53% to the budget, which includes 30% from international donations, while 11% comes from citizens' out-of-pocket contributions, 6% from communities. Only 15% of the people have insurance, though most of these are employed in the formal sector.

Senegal's President Macky Sall has visited Rwanda to learn more about universal health insurance coverage, and has pledged \$3.1 million as a start-up for the very near future. As a result of the Bamako Initiative of 1987, of which many African countries were signatories, Senegal agreed with the other members to provide "a minimum of health care services," with "severely reduced social service budgets." By 1992, the government had created many community-based health centers, with the promise that the state would respond to local and regional needs "as opposed to when administrative power and responsibility were concentrated more centrally," thus creating enhanced accountability and empowering local officials to deal with their own health problems. The ultimate aim was to quickly decentralize the system, but, for the local community leaders, the problem has come from lack of adequate training and experience in "planning and management." The Bamako Initiative also encouraged user fees and pharmaceutical sales as part of the system, with the state paying the salaries of state employees and discretionary amounts of funding being sent to local communities that would determine how to spend their resources. Existing insurance schemes are community-based, voluntary and from not-for-profit organizations managed by the community. This even includes maternal health, which, under normal circumstances, is the purview of the national government. Commendably, and in contrast with other countries in Africa, Senegal spends 9% of the health budget on mental health (*Out of Africa* 2013).

Like many other systems in Africa, including those of the Anglophone states, the deficiencies of the Senegalese pyramidal system are well known: Only 15% of the population has some health insurance; the workforce is inadequate, and many health employees are not properly trained to perform their responsibilities; child mortality, a measure of the state of a health system, is still high in the country, at a rate of death of one out of 11 children under-five; the infrastructure is extremely poor and prevents effective communication, which forces hospitals and health centers to use bicycles and motorcycles for transportation of patients and medicines, when a road is available or passable, and low-cost horse and donkey trailers. The system is slow and unreliable. Use of four wheel vehicles is too expensive in upkeep. Furthermore, even a four wheel vehicle cannot easily travel through the country to help medical facilities' staff and meet their transportation needs. Thus, in the rural areas, most people have to walk as many as 20 kilometers to get to the next health facility; data collection is poorly done; social and religious barriers (Christianity and Islam) at times prevent the system from functioning smoothly; and out-of-stock medical supplies are also expensive; and certain prescriptions are not available for a long period of time at certain

health facilities. The disparities in access to care (and to quality care) are high. Reliance on French hand-outs is also high, and, as a result of the weak health system, Senegal did not achieve the 2015 MDGs. We might mention here that international assistance to Sub-Saharan Africa decreased from \$34 per capita in 1990 to \$21 in 2001. Even though developed countries pledged to provide at least 0.7% of their annual income to Sub-Saharan Africa, as of 2006, only Denmark, Luxembourg, the Netherlands, Norway, and Sweden had followed through with their promise. This reality is going to make things harder for Senegal in its attempt to achieve the MDGs.

As a contrast, a brief mention of Rwanda, a Francophone country, but formally colonized by Belgium, is useful for our purposes. Rwanda is said to have one of the best health care systems in Africa, along with Botswana, and a few other countries, such as Ghana. Its system has universal health coverage for the Rwandans, with most mutual schemes having adopted a community-based sliding scale of medical costs ranging between 33 US cents and \$8. Those insured are expected to contribute up to one-tenth of their financial resources to their medical bills. As of 2014, only 4% of the Rwandans were not insured. Currently, Rwanda's health system also provides antiretroviral therapy to 80% of those suffering of HIV/AIDS, a rate experts consider to be higher than that of the US, where only 50% enjoy such treatment (April International 2012). For efficiency, the Rwandan health system, at least in theory, claims that it pays salaries to health personnel based on performance only. However, the inherent weakness of the health insurance coverage system lies in that 45% of the operating health costs for universal care come from medical insurance premiums, while all other costs are contingent upon international donations. This is a weakness common to almost all African health care systems. However, to appreciate the reason why the Rwandan health system seems to perform better than others in Africa, one must keep in mind that the task is made a bit easier by the fact that Rwanda is one of the smallest countries in Africa, with a population of only 11 million (2013).

LUSOPHONE AFRICA: ANGOLA AND MOZAMBIQUE

Both Angola and Mozambique went through a liberation war against Portuguese colonial occupation (1960s–1975) and almost immediately plunged into a civil war, which ended in Mozambique on October 4, 1992, and in Angola on April 13, 2002. Furthermore, prior to independence in 1975, Portugal had the distinction of possessing the most underdeveloped

colonies in Africa. These two factors must be taken into account when assessing the health systems in both Angola and Mozambique, as well as in the other former Portuguese territories in Africa: Guinea-Bissau, Cape Verde, and Sao Tome e Principe. The following is, firstly, an overview of the state of the health and health care system in Angola specifically based on the exhaustive study conducted by USAID in 2010 and, secondly, the an examination of the conditions of Mozambique's system.

A country of 17 million people, Angola's population is predominantly urban (56%), as a result of the civil war that compelled many Angolans to seek refuge in areas deemed safer, namely, the cities and towns scattered throughout the country. The health system in Angola relies on the 20% higher per capita income compared to that of the region's average, even though the poverty level is higher than in most of the neighboring states. Diseases that afflict people are still the tropical type and others, including malaria, trypanosomiasis, recurrent meningitis, yellow fever, yaws, TB, as well as HIV/AIDS, which, however, is estimated at only 2% in prevalence among the general population. Unfortunately, diarrhea, pneumonia, and malaria, easily preventable, are the major causes of under-five mortality.

Life expectancy at birth in Angola is one of the lowest in the region, at 38.2 years for men and 42 for women, compared to 53 years in the neighboring countries. Annual malaria cases total 3.25 million with a mortality estimated at 8000 (2003 figures). Annual under-five mortality rate in Angola is 158 per 1000 live births, compared to the average of 14 per 1000 in Sub-Saharan Africa, with a prevalence rate of HIV among adults estimated at 1962 per 100,000 contrasted to 4735 per 100,000 in Sub-Saharan Africa (USAID 2010: xx). While maternal mortality, the "silent killer," continues to be extremely high, at 1400 per 100,000 live births (*World Development Indicators* 2009), malnutrition remains primarily associated with the mortality rates of children under-five. On maternal mortality, the WHO notes that "Millions more suffer ill-health or disability related to pregnancy and childbirth. African women [it says] risk death to give life, and their offspring have the smallest survival chances in the world. It is the sheer magnitude of this death, disease and disability that constitutes Africa's 'silent killer'" (*African Region Health Report* 2013: 17).

It is also known that, in developing countries, like Angola, children who have lost their mothers during the first six months of their babies' lives, are up to 10 times more likely to die within two years than children who have two living parents, because such children are not breastfed, "the food supply is threatened, and there is no direct care by two parents." The Angolan health system, like that of most of Africa, has three levels of care:

primary, secondary, and tertiary, equivalent to the three levels of government (district, provincial, and national). As of 2006, Angola had a total of 337 health facilities only. At the primary level, are the referral health centers or district hospitals, health posts I, health posts II, and health centers, just as was the case with the structures built by the Portuguese during the colonial period. While secondary care includes specialized facilities and general hospitals, tertiary care consists of specialized health facilities, and central hospitals; health posts serve as the first line of defense against disease (USAID 2010: 7).

Despite the two long wars, Angola must be credited for having made some major improvements in health following the civil war. USAID notes that, in Angola, “coverage of basic services [have] increased from 30 to 42% since 2005,” while “public health care facilities grew faster than any other category,” accompanied by increased geographic access stemming from renovation and construction of new health centers. In terms of governance, the quality of service delivery is being addressed through “development of clinical standards, and evolving experiences with facility accreditation” (USAID 2010: xx). Angola also spends about \$72 per capita on health, similar on the average to the per capita spending in the region. Fortunately for the poor, primary care does not require co-payments any longer, and private health insurance coverage has been tried since 2005, “targeting companies and upper income households.” In addition, a plus for Angola is that the country relies less than many other governments in Africa on international donations to sustain its health system. Yet, the intractable problem remains with the non-salaried Angolans regarding health care, drugs, water, fuel, and medical supplies. Consequently, the challenges are almost insurmountable, making the path to health for all a major uphill battle that will make Angola most likely unable to achieve most of the WHO recommended MDGs, as pledged. Among the challenges, it is important to underscore the following:

1. In health service delivery, the major problem is the meager allocation of resources by the leadership, despite the vast profits being made through oil extraction and refinery and mineral resources, such as diamond and gold.
2. Governance is still centralized, notwithstanding official pronouncements about decentralizing the system to the localities, districts, and provinces—most of the innovations are vertically transmitted to the

periphery and vertically from the Angolan Ministry of Health in Luanda, the capital city.

3. Government public health spending remains as low as 5% when the region's spending is around 9.6%.
4. The fourth measure of a health system, human resources, will perhaps remain beyond repair over the next 20 years: "low and/or narrow clinical skills, underserved rural populations, doctor shortage (2956 doctors in 2009)—with most trained physicians and nurses going abroad—few medical schools, limited quality supervision, few "community-based health workers," poor training and supervision of primary health personnel, ineffective and irrational payroll system
5. Stock-outs of essential drugs and medicines are constant and severe, especially outside the major towns, due to "delayed national procurements, lack of operational registration system, and limited quality assurance" (USAID 2010: xxi).
6. Although data collection is improving slowly, the government delays and puts restrictions on releasing public health information, preventing the use of accurate data to allow rational health decisions (e.g., annual health statistical reports have not been available since 2007).

The problems and shortcomings highlighted here reflect the backwardness of the health care system, which is worsened by inconsistencies in priorities, as the government still reserves much of its budget to military adventures in Central Africa. Oil proceeds are squandered and siphoned for the benefit of the powerful in government and business, a situation that is further exacerbated by corruption, nepotism, and invisible under-the-table rewards and bonuses to members of the ruling party, the *Movimento de Libertacao de Angola* or MPLA, which is said to hoard caches of billions of dollars in the Caribbean islands and Switzerland and to own sumptuous villas in Portugal, while the overwhelming majority of the population languishes in a cesspool of absolute poverty.

The situation in Mozambique, also a former Portuguese colony, seems to be worse. Mozambique inherited one of the main Portuguese health models, which was highlighted earlier in the chapter on colonial medical practices in Africa. Much of the health system left by the Portuguese at the time of independence in 1975 still remains almost intact in modern Mozambique, and most of the health facilities, especially hospitals, are almost exactly the same as left by the Portuguese, except that they continue to decay and have become smaller for a population that has grown

from 10.6 million in 1975 to almost 25 million in 2015. The health system in Mozambique functions on four levels: primary, secondary, tertiary, and quaternary. The primary consists of some 652 health posts, which are the least equipped to deal with patients due to the meager medical supplies and poorly trained health personnel, and 435 health centers; the secondary includes 27 rural hospitals and eight urban hospitals; the tertiary encompasses five general and seven provincial and district hospitals; and the quaternary level comprises three central hospitals, representing, as the International Insulin Foundation notes, one health unit per 15,000 people, with only 40% of the population “having access to these health facilities” (International Insulin Foundation 2014: 1).

As it took political control of the former colony in 1975, the Front for the Liberation of Mozambique (FRELIMO) built several rudimentary health centers and posts, but the war with the National Resistance Movement (RENAMO) saw the destruction of several of the medical “huts.” Just prior to independence, 550 doctors, mostly Portuguese, practiced in 10 respectable hospitals in Mozambique, the best being the Hospital Miguel Bombarda in Maputo, former Lourenco Marques. However, by 1973, the number of doctors had fallen to a mere 87. In 1977, as FRELIMO claims, the new government was able to recruit 500 doctors, many from Cuba and Eastern Europe, and the country’s immunization campaign against smallpox, measles, and tetanus received praise from the WHO, when it reached 90% of the population by 1979. Maternities doubled in number compared to 1960, and the country touted 1,258 nurses and 11,200 beds available (Azevedo 1991: 72). After the Peace Accord of October 4, 1992, the momentum for building more facilities lost steam, and the situation turned worse than it was during the last years of colonial rule. FRELIMO claimed that RENAMO had destroyed 822 health centers. In 1991, just prior to the Peace Accord, Mozambique had only 1,142 functioning health centers.

By 2015, despite the government’s condemnation of traditional medicine, traditional healers and traditional midwives, which it fought to eliminate as it saw them as a legacy of ignorance, superstition, and resistance to modernization, the country tried to rehabilitate some of the traditional practices. Thus, it is these social structures, the community health agents and the traditional birth attendants that are assisting the government in coping with the disease burden and treatment of patients in a setting where few people are covered by private healthcare insurance, especially in the cities. The health system also suffers from a shortage of doctors, most

of whom have migrated to the West, and Cuban doctors are fewer now in Mozambique than they were at the height of the period after independence from Portugal. In addition, the health indicators in Mozambique are not encouraging: Salaries, for example, are some of the lowest in Africa. A major hospital director in Maputo was making about \$100 a month seven years ago, with no other tangible benefits. While HIV/AIDS kills one in three Mozambicans, contributing to one of the highest prevalence rates in East Africa, malaria kills 1159 out of 100,000 children under-five (International Insulin Foundation 2014: 1). Prevailing diseases include trypanosomiasis, cholera, malaria, HIV/AIDS, meningitis, yellow fever, recurrent diarrhea epidemics, river blindness, leprosy, and TB, while chronic diseases are on the rise, for which the government has tried to provide resources at the expense of those set aside to deal with the country's burden of infectious diseases. Hypertension, for example, has a prevalence rate of 33.1%, and only 18.4% of the affected people know their status. Non-communicable diseases represent 13.4% of the total causes of death, with 9.5% from chronic conditions and 3.9% due to injuries (International Insulin Foundation 2014: 1).

A 10-year study undertaken to find the factors responsible for the death of children under 15 years in the District of Manhica concluded that non-communicable diseases were the major culprit, representing 73.6%. A major success Mozambique has had is attracting international dollars for health, but reliance on the hand-outs has made the health system in the country unsustainable in the long-term: Some 25 donors finance about 70% of Mozambique's health budget, with part of the funds going to the Ministry of Health, some to private institutions, and others to specific areas of the country, or to fight specific diseases such as the "Big Three"—HIV/AIDS, Malaria, and TB—targeted through what is called the "vertical" approach to disease. Whatever approach is taken, however, Mozambique must apply some rapid impact strategies that target large segments of the population, using the "healthy settings approach," which provides some assurance of maximum impact to such places as schools, institutions such as universities, hospitals, cities, villages, and food markets, all based on the premise that "health depends on supportive healthy settings as well as good health services" (*African Region Health Report 2013*: 96). The health situation in Mozambique has been dramatized and brought to prominence by well-known journalist Ray Suarez, of PBS NewsHour, who traveled to the former Portuguese colony in October 2010, visiting first the district medical center in Chibouti, north of Maputo. Suarez writes: "A cluster of low-slung buildings surrounding a sandy, weedy courtyard,

this is the hospital for more than 200,000 Mozambicans. The windows are wide open to the hot, lazy breeze drifting into the pediatric ward... Inside, five to eight beds are full. Women try to calm infants...Some have malaria...Some show the signs of severe malnutrition...Some are HIV-positive” (Suarez 2010: 2). At the Xai-Xai hospital, he writes, “there is no blasting air-conditioning or endless supply of disposable gowns or medical instruments. What Xai-Xai does is simply take random and sometimes chaotic practices of underfunded hospitals throughout Africa and eliminate them through training, training, and more training.”

The infrastructure in the country is very poor, with enormous distances from one point to another where the next medical facility might be found; automobiles are few compared to other states; the coast stretches for hundreds of miles “with little public transportation and a few big population centers to encourage specialization efficiencies of scale, forcing families to wait until a child is seriously ill before they take him/her to dispersed health centers.” This is coupled with the “absence of adequate diagnostic tools, essential drugs and medications, where the closest physician is two days away.” As was the case during the colonial period, over 50% of the health facilities and care are concentrated in the major cities, even though the majority of the population, 62%, still live in the countryside, and where the budget for health does not exceed 9% of GDP (Hughes 2012). Mozambique suffers from major floods virtually every five years, costing lives, crops, livestock, and homes from such rivers as Zambezi, Rovue, and Limpopo. Despite the frequency of these natural calamities, the country is never ready through well thought out and effective emergency plans, a clear indication of a flawed health care system that barely meets international or regional standards. Mozambique was not expected to meet any of the MGS in 2015.

HISPANOPHONE AFRICA: EQUATORIAL GUINEA

Inhabited by only three quarters of a million people, Equatorial Guinea, as briefly mentioned in another chapter, is a former Spanish colony that achieved its independence in 1968. Equatorial Guinea is considered to be a high income country, mainly as a result of the enormous oil reserves being extracted and refined mainly by the Marathon Oil Corporation, making it one of the five major producers of oil in Africa. As expected, the country suffers from the same tropical diseases as others in the region: malaria, TB, measles, yellow fever, leprosy, trypanosomiasis, schistoso-

miasis, meningitis, and others such as HIV/AIDS. Overall, infectious diseases represent 85% of the consultations in the country, and diarrhea alone accounts for half of the visits, while flu, the major endemic illness, represents 61% of the country's illnesses. TB's deadly impact is estimated at 15% among patients on treatment, and most of it is due to late diagnosis and HIV co-infections. About 60% of its population lives in rural areas, with a life expectancy at birth of 52.08 years compared to the average in Sub-Saharan Africa of 55.92—still a major accomplishment for a country located in some of the worst disease-prone areas of the continent. Another major accomplishment of this tiny state is the fact that more than 50% of the population now has access to clean drinking water, when in several parts of Africa the figure does not reach 36%. Also, maternal mortality rate stands at 240 per 100,000 live births (2010), compared to the average of 494.53 per 100,000 across Sub-Saharan Africa; the percentage of births attended by skilled health workers stands at 64.6 contrasted to 33.14% in other Sub-Saharan African countries (USAID 2013: 4). The prevalence rate of HIV is 4.7% compared to 7.0% in the Sub-Saharan region. Against malaria, Equatorial Guinea has a relatively higher rate of children sleeping under a bed net in the region, 2.7%, as opposed to 0.7 in the rest of Sub-Saharan Africa. However, the under-five mortality rate is estimated at 100.3 per 100,000 live births, which is higher when compared to the rest of Sub-Sahara, where, on the average, it is 94.27 per 100,000. Yet, fertility here is extremely high at 5.4 per woman (2011), a little higher than in the rest of Sub-Saharan Africa, estimated at 5.23 per woman.

Looking closely at the health system in the area of leadership and governance—one of the building blocks of a good health system—Equatorial Guinea scores very low, 1.87 (2012), when the average in Sub-Saharan Africa is 0.74, with the point estimate in 2012 at 1.65, compared to the Sub-Saharan average and other high income countries of 0.83 and 0.65, respectively (USAID 2013: 2). On health financing, the second building block, Equatorial Guinea spends only 3% of its GDP on health, despite its huge oil revenues, when, elsewhere in Africa, the figure is around 5.0–6.34%. However, to its credit, Equatorial Guinea does not over rely on international donors for health funding: 1.75% of the health budget is made up of international donations compared to 23.8% average for the rest of Sub-Saharan Africa. Because the government does not provide health insurance coverage to its citizens, notwithstanding the vast oil revenues, citizens spend about 93.5% in health costs using out-of-pocket

money, contrasted to the average cost attributed to people in Sub-Saharan Africa, namely, 73.7%.

On the third building block, service delivery, such as maternal health care, Equatorial Guinea does not do well, which also applies to child care for under-five. However, on attendance at birth by skilled workers, Equatorial Guinea does not do badly compared to the rest of the region. Yet, USAID notes that HIV/AIDS, TB, and malaria pose a major health challenge for Equatorial Guinea. Regarding human resources for health, the fourth building block, Equatorial Guinea has had only 0.3 physicians per 1000 people (more recent figures are not available), when the rate should be at least 1.48 per 1000, as is the case with other high income countries. In fact, the country does not meet the standards of the Joint Learning Initiative of 2004, which “set a threshold for density of physicians, nurses, and midwives of 25 per 10,000 to achieve 80% coverage or skilled birth attendance and measles immunization.” On management of medical products, vaccines, and technologies, the fifth building block, Equatorial Guinea falls short compared to the region and to other high income countries, achieving, in fact, only close to half of what others achieved in 2006. Regarding the information system, the last health system building block, virtually no health data are available in the country, causing USAID not to comment on this important aspect of any health system.

Concluding this section, we must say that, despite the several differences that exist among the current health systems in Africa, the major structural format and organization are the same. This is best summarized by Spielberg and Adams (2011: 13), when they write that the health care system in Africa is organized under a National Ministry of Health (MOH) and Departments within the ministry address key health issues such as the regulation and oversight of public hospitals, preventive care services, and maternal and child health. The ministry is responsible for both public health services and direct patient care services. Most health facilities—from large, tertiary referral hospitals (usually situated in large urban areas) to the smallest health clinic or outpost—are part of the public-sector national health system. Most healthcare providers are employed by the government, and work at public health-care facilities where care is generally provide free of charge. However, patients may have to pay fees for diagnostic tests as chest x-rays, laboratory tests, and prescribed medications. In many countries, national policy dictates [on paper and not in reality] that children

under age five and pregnant women are exempt from these fees and receive all care free of charge.

POVERTY AND HEALTH IN AFRICA

This discussion establishes the fact that health and poverty are twin sisters that reinforce one another, to the extent that, on the one hand, if someone is poor, he is most likely going to live an unhealthy life because health requires access to resources, a level of general literacy, and awareness of disease prevention in particular. On the other hand, if someone is unhealthy, the likelihood is that he will not be able to function properly in society and might spend all his meager resources and energies trying to be well, which might perpetuate his state of poverty or force him to lead an unfulfilling life. Poverty is a consequence of social and political inequalities or disparities that should never be allowed—and can be eradicated just as the disease itself. This is not to deny, of course, that individual behavior may lead one to poverty. However, it is also clear that no one wishes to be poor. Many people are trapped in a vicious cycle of poverty since the day they are born, and therefore the risk to their health is high. As the WHO says, “the poorest almost always experience higher mortality levels, die younger (on average), and experience higher levels of child and maternity mortality,” because “causality between poverty and ill health is bi-directional, demonstrated in both macro-level (cross-national and national) and micro-level (individual, household, and community) studies” (Quoted from World Bank 2004: 3).

In countries such as the Central African Republic, mortality rates of infants and under-fives for the “assets poorest quintile of the population is always more than twice that of the richest quintile” (World Bank 2004: 20). Thus, it is the responsibility of the government and society to ensure that everyone is given equal opportunity to develop unhindered both physically and mentally and pursue happiness on this earth and not be forced to postpone this right to the afterlife, if one believes the latter exists. ECOSOC is clear on the obligation governments have in eliminating poverty as a priority and health systems’ moral obligation to make care accessible to all citizens: “Closing the gap [between rich and poor] is a matter of social justice—we should do it because it is the right thing to do. It is an intensely moral issue. We put at the center of what we were trying to achieve empowerment, which we think of a material, psycho-social and political, having a voice. In the spirit of justice, we seek to help create

the conditions for people to lead flourishing lives.” (ECOSOC Members’ Dialogue Forum 2009: 34). No matter how poor one might be, however, the international community (except some significant segments of the US), overwhelmingly believes that health and access to quality health, as defined by the UN, are not a privilege of a few but a human and a citizen’s right no matter where he or she might reside.

Therefore, access to quality health should never be a sole dominion of the wealthy and the powerful but of everyone—poor, sick, powerless, disabled, or unhealthy. How this right is guaranteed depends on how a given society distributes the internal and external resources it commands. Yet, there are general principles that have been accepted by the international community that should be a part of every health system. For the world today, the accepted norms and recommendations of the WHO serve as general guidelines providing a common framework that protects the rights of the poor, of ethnic and racial minorities, the disabled, children, women, and rural communities, which the health care systems and biomedicine tend to ignore or to which they are simply insensitive. The privileged segments of society often forget that no one can isolate him or herself from the various persistent and emerging infectious and chronic diseases. Technology and advanced transportation systems have caused our world to shrink, so that what happens in a remote village of Africa or Asia today, such as an Ebola outbreak, may affect the health of citizens in America, Britain, and Australia tomorrow.

Indeed, the case of Ebola eruption in West Africa in 2014 is a good example. One flight from Sierra Leone to Nigeria carrying an infected passenger may have contributed to the virus appearing across borders for the first time in the many years of its existence in an isolated area to a country, such as Nigeria, where it had never been seen before. Ebola, for which no effective cure has been found and kills as many as 60% of its victims, is named after the Ebola River in the Democratic Republic of the Congo where it erupted first in 1976. Thereafter, it slowly and intermittently spread to surrounding countries, and by July 2014, it had reached Liberia, Sierra Leone, Guinea, Gabon, and Nigeria. On July 28, 2014, an American working in Liberia took a flight to Nigeria and collapsed after landing at Lagos. He was taken to the hospital for testing and treatment, but he died immediately, and Ebola was diagnosed as the cause of his death. Preventive measures, such as closely monitoring the borders were put in place, flights to and from certain countries cancelled, and schools and markets closed. Speculations are that the disease is transmit-

ted from non-human primates, such as chimpanzees and gorillas, to man. Its symptoms include muscle aches, headaches, fevers, diarrhea, vomiting, stomach pain, rashes, red eyes, and breathing and swallowing difficulties, and leads to profuse internal bleeding, which may appear in body orifices, such as the nose, eye, and rectum, and is contracted from person to person through body fluids. Its incubation period ranges from two to 21 days, but some had suspected that the infection might spread even in the pre-active phase of the disease. Non-sterilized equipment such as syringes used in different patients is also one of the vectors of the infection.

Scientists believe that it may be caused by man's contact with and ingestion of chimpanzee primates or the careless contact with bats at times caught for consumption by people in the region, says the UN Food and Agriculture Organization. Once the meat is well cooked, the virus is killed and the disease cannot be transmitted. Others believe that Ebola originated in the jungles of the Philippines. However, a similar virus, Marburg, was discovered in the town of Marburg, Germany, in 1967, identified as originating from non-human primates, and has also appeared in Central and East Africa, including Uganda. Both Ebola and Marburg are hemorrhagic fevers and both are deadly, but they react differently to antibodies. Interestingly, this German connection is never mentioned when the origins of the disease are discussed. The most vulnerable to the disease are relatives of the infected persons and health workers, including doctors and nurses, some of whom lost their lives trying to save the sick. Funerals for the infected dead have proven to be also one of the sources of contagion, as people refuse to abandon traditional practices that allow the living to touch the dead or wash them without proper protective gear. In fact, health workers trying to monitor the funerals have been stoned or beaten by the mourners (ABC News 2014).

More frightening, however, is the latest discovery by the scientists that the virus lingers for months in the body of even a cured person and may be transmitted through sexual intercourse. Thus, as of May 3, 2015, epidemiologists have advised that, whoever has recovered from the Ebola virus, should either abstain from sex entirely or use effective protection at all times. Unfortunately, for a long time, many in the areas affected do not believe that Ebola exists. No one on earth is, therefore, safe from disease and pestilence, as long as we have not found a cure for all diseases. Thus, the emergence and spread of Ebola (known as *vijidudu* in East Africa) and the unlikely disappearance of diseases we thought we had conquered, such as polio and smallpox, should be a concern for the entire global com-

munity, whether developed or non-developed, as the WHO reminds us (*African Region Health Report 2013*: 200). So, the relevant question is: Which comes first, poverty or health? There is no absolute answer to the question because it is tantamount to asking which comes first, the chicken or the egg? However, this much we know about these two concepts and realities: We live in a world that is interdependent, made even smaller by what we call globalization.

Returning to the issue of poverty as a harbinger of disease and poor health, the UN notes that Africa continues to be disproportionately the poorest of the continents and the only one whose poverty index has increased overall since the 1960s. Says Garry Smith (2013): “Even though two-thirds of the world’s poor live in Asia and one-third in Africa, the level of poverty in Africa is by comparison far more widespread and endemic.” While Africa’s per capita income is lower than it was on the eve of independence over 30 years ago, 50–60% of the people live below the poverty line of \$1.00 a day. Yet, the more Africa is given, the poorer its population becomes!

In Sierra Leone, for example, a small country that, for the past few years, has received over \$1 billion in aid, the majority of the citizens still live in absolute poverty. As the WHO puts it again in reference to the continent, “about two-thirds of the population of Sub-Saharan Africa survives week by week on what someone in the United Kingdom earns from just one hour’s work on the minimum wage” (*African Region Health Report 2013*: 30). The scaling up of the interaction between poverty and ill health is a result of the following risk factors: income poverty; nutrition and health; ill health; “livelihood strategies”; and “modalities of coping with vulnerability to ill health.” Uganda is an excellent example of this phenomenon. The country’s effort to reduce poverty fell from 56% in 1992 to 35% in 1999, even though many households remained poor “while others moved up.” Furthermore, Uganda’s participatory Poverty Assessment Process indicated that “over 37% of communities thought that ill health was a major cause of moving into poverty” (Republic of Uganda 2002). Most of the poverty studies have also shown the existence of an association “between the original status of the household head and household moving into poverty” (*African Region Health Report 2014*: 9).

In this context, former UN Secretary-General Kofi Annan was correct when he once warned the international community that “Poverty is the biggest enemy of health in the developing world...We shall not defeat AIDS, TB, malaria, or any other infectious diseases that plague the devel-

oping world until we have also won the battle for safe water, sanitation, and basic health care...We shall not defeat them until we have also defeated malnutrition, and overcome the ignorance of basic precautions which leaves so many people exposed to infection” (Annan, Address to General Assembly 2001). His address reiterates what constitutes poverty and how poverty impacts health. David Lawson also notes that, in Southern Africa, poverty is no longer focused on income differences and key indicators, such as morbidity, mortality, and nutrition. Since 1984, he adds, the focus has been on a “multidimensional and people centered understanding of poverty and welfare,” encouraging researchers and policy-makers to focus on the individual, which takes into consideration his or her capabilities to function normally as expected by society. In his analysis, Lawson almost equates poverty itself to a disease, as he writes: From such perspectives, preventable deaths and ill-health are not merely outcomes of poverty but integral components of poverty itself, measuring simultaneously the NDP’s human development index (HDI) and human poverty index (HIP) that incorporate health indicators in their compilation (Lawson 2004: 2).

In the words of Doyle and Gough (1991) as well, the underlying assumption of their studies is that:

...health, or ill-health, is central to the understanding of income and capabilities poverty, in which income and capability poverty is central to the understanding of health. This is a two way relationship. Millions of people are income poor because of health problems and lack of access to health services while income poverty means that millions of people suffer health problems that are easily preventable and cannot access health services...health and autonomy are two basic human needs. (Doyle and Gough 1991: 2)

Calling ill health and poverty a “vicious circle,” the most unbiased organization that speaks for both poor and rich, healthy and unhealthy—the WHO—affirms that “improvements in health are important in their own right, better health is also a prerequisite and a major contributor to economic growth and social cohesion,” and, therefore, “Interventions that can interrupt or break the ‘vicious circle’ of poverty and ill health interactions, be they accessible health care, social protection or asset transfer, must be found and funded as a central component of poverty alleviation” (WHO 2003: 11).

In sum, the UN reiterates further that the association between poverty and health and vice versa is well established. Experience and interdisciplin-

ary studies have shown that “the poorest, around the world, have the worst health. Within countries, the evidence shows that, in general, the lower an individual’s socioeconomic position, the worse their health. There is a gradient in health that runs from top to bottom the socioeconomic spectrum... This is a global phenomenon seen in low, middle and high income countries” (The WHO *Report* 2011: 200). It is also a fact that poverty is often a generational phenomenon from which many individuals cannot extricate themselves. As the UN again reveals, “The multi-generational nature of poverty, with successive generations inheriting the disadvantages of their predecessors, means that over the years poverty and deprivation have become part of the characterization of particular racial and ethnic groups trapped in poverty” (*Social Watch* 2013: 1–4). Incidentally, as the UN finally notes, “it takes 1% of the global income to eradicate all poverty in the world in a year, equivalent to 0.5% of the annual world income, to provide universal access to basic social services (basic education, health, nutrition, and access to water and sewage disposal)” (*WHO Regional Office Africa* 2011). Sadly, as of 2011, 33 of the 49 poorest countries in the world are in Africa, and, in 1985, Africa represented 16% of the world’s poor. This number grew to 31% by 1998, and, in 2011, the WHO noted, “the trend is likely to continue, with poverty expected to decline over the next 20 years in every part of the world, except Sub-Saharan Africa, where a dramatic increase is expected,” HIV/AIDS playing a major role in this process (*WHO Regional Office Africa* 2011: 3).

UNIVERSAL HEALTH INSURANCE AND CO-PAYMENTS IN AFRICA’S HEALTH SYSTEMS

The issue of universal health coverage (UHC) in Africa is finally getting some traction as a result of, first, the fact that most people are not able to pay not only for serious costly health emergencies but also for even minor co-payment treatments. Second, the growing consensus in Africa about the right to health through universal insurance has been strengthened by a positive response from the UN and the Bill and Melinda Gates Foundation. UN agencies working for “Sustainable Development for Post-2015”—following achievement of the MDGs—support the principle that all health benefits must be enjoyed by all on equal terms “while making financial contributions according to their ability to pay: UHC means that healthy, wealthy people must subsidize services for the sick and the

poor” (see Yates 2013). This consensus is a result of continued failure of private voluntary insurances and community-based schemes over the past several decades. Relying on solid studies, OXFAM stresses the point that social health insurance as a percentage of a person’s income and general taxation are the best models to ensure that the health of all citizens is equally protected. To this WHO adds: “Any insurance scheme must be judged on impact on the entire population” and not just on the rich, which implies the need for a “compulsory public system and use of financial taxation to cover informal sectors,” as is already been done in South Africa and Rwanda, both of which are moving toward universal insurance coverage.

In such countries as Uganda, Nigeria, Kenya, and Ethiopia, over 40% of people below the 20% bracket or income level are using health care from private for-profit insurers. However, experts fear that this will most likely create a two-tier provision of care “that will benefit some but harm the concept of equal access to quality care for all citizens” (*Economist Intelligence* 2011: 14). Some estimate that, by 2020, private spending from employers, not-for-profit organizations insurance corporations, and non-governmental institutions will reach \$28 billion, about 17% of the total health care expenditures in Africa. Optimists believe that more than half of Sub-Saharan Africa or 70% of the African Region (excluding Morocco, Tunisia, Libya, Eritrea, Sudan, and Somalia)—if the economic conditions continue to improve at the pace seen over the past five years and the leadership changes for the better—might be able to commit a minimum of \$60 per capita health spending by the majority of the Sub-Saharan African countries. In Tanzania, as briefly noted earlier, the NHIF covers civil servants, who are 6% of the population, at a rate of 6% of their income (Azevedo et al. 2014). Such a change would be a drastic jump from the current single digit per capita health spending by the majority of the Sub-Saharan African countries. In Tanzania, as briefly noted earlier, the NHIF covers civil servants, who are 6% of the population, at a rate of 6% of their income (Azevedo et al. 2014: 242). The informal sector may purchase insurance from the CHF, which is a voluntary insurance scheme that also insures those classified as “indigents” and others unable to afford one, as well as people that are “less likely to get treatment due to user fees” (Wong 2013). The remaining citizens have no other recourse but to rely on the services of the traditional healers.

As noted earlier, Kenya runs a similar system that mandates that all salaried employees purchase insurance from the NHIF, and voluntary membership in the fund for the self-employed is allowed, with the fees ranging from 160 to 320 Kenya shillings or between \$2.00 and \$4.00 a

month. The scheme sounds cheap but not for someone who makes no more than \$10 a month. In this setting, people have to choose between health and nutrition and other important necessities of life. A poor person, defined as making less than \$2.00 or less a day, affording insurance is simply impossible. Kenya's future plans are to match proportionally a person's income with the rate to be paid to the NHIF, which is a step toward universal health coverage mentioned above. The 2012 Kenya constitution notes that all citizens have the right to "quality and affordable health care," placing the responsibility to remove "barriers to access" on the government. Currently, if members and dependents fall sick and are admitted as in-patients at a hospital, they are charged only the balance after a rebate of between 400 and 2,000 Kenya shillings or \$5.00–\$22. The problem with universal health coverage is the more pressing since such issues as occupational safety, vehicle and crash protection (of both driver and passenger), and environmental hazard protection are virtually non-existent, and, if they exist, their enforcement is lax.

A combination of private insurance coverage and the smallest co-payments for minor health needs—the latter as an incentive to contribute to one's own good health, and total exemption for the poorest, pregnant women, and children—might assist Africa in providing affordable basic quality health care to all. In 2006, for example, Burundi introduced free services for pregnant women, and so did Burkina Faso by providing an 80% subsidy policy for deliveries. Kenya already provides free antenatal care, while Ghana's free delivery care introduced for the first time in 2004 caused maternal death rates of 500 per 100,000 live births to plummet to 350 per 100,000 in 2008, but still experts doubted that the country would reach the MDG of 185 per 100,000 by 2015, most likely due to a high number of women still not using properly trained midwives. Almost unexplainably, the use of biomedically trained midwives in Ghana dropped from 54% to 35% in 2007, after a healthy improvement over 1993. Pressured by the IMF's structural adjustment programs during the 1980s and 1990s, some African countries adopted the practice of requiring co-payments from all patients (to abolish them later or exempting some segments of the population), while others, like Tanzania, toyed with the idea of outsourcing this aspect of medical care (Brennell and Breannon 2012).

Under pressure from the IMF, Mali and Mauritania have introduced community-sharing schemes to make out-of-pocket payments more affordable and reduce maternal and neonatal deaths. Even though Tanzania has virtually exempted the poor, children, and pregnant women from co-payments, yet, against the spirit of the guidelines, the latter have

to prove that they are poor. This odd requirement has contributed to further stigma, thus defeating the purpose of the legislation. Furthermore, the assessed fee gets higher as the health pyramid system reaches the apex, the referral national hospitals. The claim of free services is, however, deceiving. For example, when mothers or children are seen by the doctor freely, syringes, drugs, gowns, and other essential components are the responsibility of the patients. Often, when they might have the funds, they are unable to purchase the medication prescribed by the doctor because the pharmacy may be either out-of-stock of the items or the prices specifically recommended to the pharmacy by the doctor or the government are too expensive. This is done in violation of the guidelines set by the government, which is supposed to provide these items free of charge. In Tanzania, it is possible to frequently see a truck full of internationally donated syringes designed to be distributed freely by the hospital and then realize that the patients are being asked to pay for them!

Overall, maternal deaths are still the highest in Africa compared to other continents of the world, and they are associated not only with diseases but also with a lack of resources invested for maternal well-being. Maternal mortality in Sub-Saharan Africa is also exacerbated by the rate of induced abortions which are often done in secrecy because of the stigma and the fact that laws governing this issue are often based on religious grounds. Studies show that 40–50% of mothers' deaths in Africa are due to botched abortions. Yet, politicians close their eyes and speak only of punishment of the culprits while forgetting to deal with the root causes or the resulting social dynamics; the need for ensuring that pregnant women enjoy a modicum of acceptable nutrition; and that birth delivery is done appropriately, that is, by biomedically trained midwives as well as experienced traditional attendants, who, for centuries now, have saved so many lives. Also, that mothers are given the proper post-partum care before they are released from the delivery health facility. Infant mortality constitutes another silent crisis in Africa, where it is clear that things have worsened from the early 1960s, when the rate of mortality among children under-five was 14% of the world's rate, having risen to 43% by 2000 (Niang 2008: 11).

IMF STRUCTURAL ADJUSTMENT PROGRAMS AND GLOBALIZATION

The IMF structural adjustment programs (SAPs) have been seen as a double-edge sword. Because of their now proven harmful side, Paul Farmer has called them “structural violence,” given their negative impact on the “poverty and poor health outcomes” (Spielberg and Adams 2011: 11). According to Farmer, SAPs are barriers preventing individuals from exercising their rights such as the right to education and health, especially when “the individual is not at fault; rather, social forces, historical processes, and their resulting legacies constrain the individual.” Then, he adds: “Structural violence is visited upon all those whose social status denies them access to the fruits of scientific and social progress” (Farmer 2001). In Zambia, Zimbabwe, and Swaziland, for example, life expectancy at birth was reduced to 35 years, during the 1980–1990 period, the worst years of the health crisis in Africa—according to UNAIDS—as a result of structural adjustments and the HIV/AIDS epidemics. During that time, Africa also lost 544 disability-adjusted life years (DALYs) per 1000 people, more than twice the loss in India, due to disability, death, or ill health. In 1992, Kenya, Zimbabwe, and Ghana accepted the structural adjustment or conditionalities from the IMF and imposed user fees (also known as co-payments, co-financing, and cost-recovery). As a result, government subsidies to health in Zimbabwe decreased by 14% between 1990 and 1992, and then by 29% during 1992 and 1993. The health budget decreased by 50% hitting pre-natal and delivery health care the hardest. In Kenya, external patients’ consultations decreased by 40%, especially affecting treatment of those suffering from sexually transmitted diseases. Ghana did not do as bad, and became the model for the adjustment programs. Some studies show that the standard of living in Africa fell by 2 per year between 1990 and 2008, to a level lower than it was in the early 1960s and 1970s. Unemployment became a major problem everywhere in Sub-Saharan Africa and the buying power of Africans declined in real terms. Africa’s debt grew tenfold between 1970 and 2008.

These factors were a major reason for the collapse of many African health “systems, as much of the workforce migrated to the West or other parts of Africa; the health policies did not center on communities, especially the poor; education suffered from reduction in social spending; many of the colonial models, which stressed changing individual behavior, were unfit to Africa’s needs, as they did not reflect the African context,

with infrastructure that overwhelmingly favored the cities. While roads were built on the European model, linking primarily productive centers, they neglected the countryside. Obviously, they did not take into account that most Africans were pedestrians, and that humans and cows, for example, constantly crisscrossed them at the same time. The 1978 enthusiasm for Alma-Ata, which was supposed to build enduring infrastructures to ensure health for all by 2000, began to dissipate during the 1990s; the health workforce began to be slashed, as was the case in Senegal, where it decreased from 5,904 in 1989 to 4,886 in 1995; and budgets were cut in almost all of Africa, reaching lower levels than was the case during the 1960s and 1970s.

We cannot forget to look briefly at the impact of the phenomenon we call globalization on health in Africa. Globalization, a term coined in the 1970s, is a buzzword today but the controversy over its impact on the developing world continues to rage both among the rich and the educated and among the poor and the vulnerable populations of the globe. The very definition of the term is controversial, and it often depends on the ideology of the definer from one end of the spectrum to that of the receiver. Listening to one of the most known experts in the concept of globalization, Labonte, might help the reader understand the pertinent issues. Labonte (2011) says: “Globalization, defined at its simplest, describes the constellation of processes by which nations, business and people are becoming more connected and interdependent across the globe through increased economic and communication exchange, culture diffusion (especially Western) and travel.” This definition already connotes a one-sided direction of the movement, as it stresses the influence of Western “civilization” and culture over the developing, non-Western world. Labonte amplifies his point by stressing the importance of a free flow of capital, goods and services which, according to some, should lead to global equality and liberty, and the spread of new ideas and technologies. These would, in turn, spur global economic growth. The benefits of the process would trickle down to the poor and the rich simultaneously.

Whereas Labonte is less restrictive in his definition, Woodward and his colleagues stress the economic element embedded in the concept and its manifestation in the world today. They define globalization as:

Economic globalization has been the fundamental force behind the overall process of globalization over the last two decades. It has been characterized both by a dramatic growth in the volume of cross-border flows and by

major changes in their nature. International trade has grown at an accelerated pace—nearly 8.6 percent per year over the period 1990–1999—with the proportion accounted for by services increasing steadily, reaching nearly 19 percent in 1999. However, this transformation has largely by-passed low income countries, most of which remain critically dependent on aid flows. (Woodward et al. 2001)

The last statement in the preceding definition or description of globalization constitutes the crux of the matter for those who believe globalization is unidirectional, moving unevenly from North to South. To counterbalance the two perspectives, Rennen and Martens have provided a definition that perhaps is more acceptable, as it incorporates the components of globalization in all spheres of life, including health, which hinges on what the UN called in 2005 “the determinants of health.” The two experts see “contemporary globalization as intensification of cross-national cultural, economic, social, and technological interactions that lead to the establishment of transnational structures and the integration of cultural, economic, environmental, political and social process of global, supranational, national, regional, and local levels” (Rennen and Martins 2003).

Gonzalez-Carbajal and Leyva characterize globalization, which according to them is a movement defended by neoliberals along with such international organizations as the World Trade Organization (WTO), the IMF, and the World Bank, as “the increasing integration into a sole world capitalist market system” (Gonzalez-Carbajal and Leyva 2011: 99), which began in 1945 at the Bretton Woods Conference, held in the US by the victors of World War II. Out of their meetings came the two financial institutions, which have so much power and economic influence today. Carbajal and Leyva hold the view that globalization is “the tendency of markets and enterprises to increase themselves, reaching a global dimension which transcends national boundaries,” implying that it is essentially an economic process, propelled by advances in technology and communication, whose result is a hegemonic hold of the world through control over the global market by major corporations and power hungry monopolistic businessmen and their political allies. Analysts of globalization point also to the fact that health and people’s livelihoods are determined by the distribution of resources, such as hegemonic economic political power and asset ownership at both the global and local levels, which are all influenced by policy choices that tend to marginalize the powerless and the poor

(WHO 2003), while simultaneously siphoning the natural resources the latter might have to offer and its needs.

What globalization has done, according to those opposed to its insensitive and aggressive style on the globe, is allowing control over the world by the West and its megacorporations such as Coca Cola, Firestone, McDonalds, Toyota, Barclays Bank, Exxon Mobil, Mitsubishi, KFC, British Petroleum, and General Motors, and even the IMF and the World Bank, both of which see themselves as the saviors of the developing world. Through their power, many of these conglomerates own assets and have incomes greater than those of developing countries where they operate and are therefore able to exert pressure and evade the tax system, hide their capital gains, and force the nefarious liberalization of imports and exports at the expense of the Africans whose resources come partly from the international exchange of commodities. The end result is the existence of the extreme inequalities and the absolute poverty seen in Africa today. The IMF, for example, has been accused of forcing Africa to accept its structural adjustment programs and slash social programs, such as education and health, freeze or reduce civil servants' salaries, and devalue the currencies, while dictating the terms of the use of the loans provided. To the claim that globalization would result in the leveling off of the playing field, Bozorgmehr once wrote (2010) that "globality links people in the world but it does not follow that it connects people everywhere."

Turning to health, Harry Besada seems to defend the effect of globalization in Africa, despite the fact that many experts blame the stealing of African physicians and nurses on the phenomenon of globalization. Richer countries, such as the US, the UK, and Canada, just to name a few, have made the conditions so easy to transfer the workforce from Africa to the West as a result of essentially two elements: Their political and economic prowess, which often depends on resources stolen from the developing world itself such as Africa, and their disregard for the impact the workforce flight has on the health of the people, who have no recourse. Besada notes that:

Globalization also has had far-reaching implications for health systems in Africa. By intensifying the economic and racial interconnectivity between countries, it has provided more employment opportunities for health care workers and greater integration of health care services, exchange of medical information, transfer of skills, information medical products and standards of practices as well as resources and avenues for responding to challenges in the health sector. (Bessada 2013: 211–212)

He then adds:

However, it is not the prevalence but the scale of this dynamic that grabs attention. There is nothing intrinsically new about the movement of health professionals from poor to rich countries. High level experts have always been internationally mobile, regardless of their country of origin. What is new is the emergence of an international healthcare labor market that provides increased opportunities for an ever larger number of health professionals from poor countries to seek mobility in response to pull factors on the demand side and pull factors on the supply side. (Bessada 2013: 211–212)

The fallacy of the argument is double-edged: First of all, the fact that this movement has been happening for some time now as a result of globalization does not make it right. The flight of thousands of doctors and nurses annually deprives Africa not only of its critical workforce but it also occurs at the expense of the millions of dollars spent to educate these disappearing saviors of Africa's sick. Second, the question to be asked is: At whose expense does the Western countries' profit occur? The answer is clear: The Africans, whose resources have been stolen for over two centuries and continue to be siphoned using novel ways of the "exploitation of man by man," to borrow Karl Marx's explanation of the differences between the rich and the poor, the oppressed and the oppressors.

Indeed, the fact that it "is the scale of this dynamic that grabs attention," as Besada admits, implies that every informed and concerned individual sees the unfair and harmful effect of the whole process. Many critics of unscrupulous globalization point to its intrinsic selfish nature that seeks nothing but profit, begotten at all cost, with man exploiting man by using extreme individualistic capitalism imposed on societies that tend to be more community-oriented, as is the case in Africa, which is symbolically underscored by the adage "it takes a village to raise a child" and the extended family relations that serve as a cushion of support during hard times. To Africa, globalization has brought the following realities: the prominence of sport over intellectual learning and achievement; the glorification of gruesome scenes of violence; the glamour of sex; the reckless and deadly vehicle driving constantly shown in movies theaters; the revival of racial and ethnic slurs that demean minorities; the sensational portrayal of genocide and internment of those who are physically or racially different from the majority; and tolerance of a completely subversive trend that destroys precious family life and intimacy through constant use of communication devices that seek instant gratification.

One should also pay attention to the merchants of profit from the misery of others—the pharmaceutical corporations—which are a clear result of globalization. Indeed, pharmaceuticals continue to claim further exclusive rights before the WTO and governments, as was the case of Merck & Co and 39 other American pharmaceutical corporations in South Africa that went to court to defend their “rights” to prohibit the government from importing cheap drugs. They finally dropped the suit in 2001, after realizing that this was allowed by the international courts. In the context of globalization, the issue of generic drugs is extremely relevant to the struggle for medical autonomy on the part of the traditional healers in Africa. We have been led to believe that competition and globalization would bring the prices of drugs down. This has not, however, been the case in the developing world. In Kenya, for example, the prices of antiretroviral therapy medication and treatment have gone down from \$10,000 to \$100 a year through the use of generic drugs for HIV/AIDS, malaria and TB, but only through the insistence of philanthropic organizations such as the Clinton Foundation, and governments. These were instrumental in shaming their conduct and forcing them to think about humanity rather than profitability at all cost.

India and China have been the providers of most of the generic drugs to Africa, reducing the cost by 80% in the fight against the “Big Three.” However, the requirements regarding intellectual property as upheld by the WTO tends to harm the health sector and benefit the powerful, vocal pharmaceutical giants that oppose the easy availability of generic drugs and of active pharmaceutical ingredients, while at the same time stealing the herbal and plant knowledge and the drug manufacturing rights of the traditional physicians in Africa. To remedy the situation on behalf of the Africans, says the WHO, Africa needs to have its own manufacturers so it can produce its own vaccines and essential drugs and continue to provide what the European partners have been able to take and deliver from “top down” (see Tumusiime et al. 2012: 1–6).

Obviously, globalization does not have to be the monster that destroys the type of life and the serenity people have sought for centuries. The Internet, the fastest new means of communication, the new commercial airplanes able to travel almost 600 miles an hour, the fax machine, the computer, the smartphone, the iPad, Facebook, Skype, Instagram, and Twitter, and all technological health advances, such as telemedicine, that have brought solutions to many of man’s problems, and easy accumulation of critical data that can make our lives easier and more productive,

are great and useful innovations that have accompanied globalization. Yet, globalization's ugly side is choking the developing world, though often covertly. The replacement of man with machine without the retraining of workers, for example, has created high unemployment, despair, and the destruction of the nuclear family everywhere. Thus, to combat the nefarious impact of globalization—with its tendency to accumulate capital and wealth, and its thirst for control over the means of production that relegates the poor to the lowest denominator as humans while gobbling everything that comes its way—some anti-globalists have come up with the concept of “global public goods.” A global public good is meant to be protected by all enterprises, nationalities, institutions, communities, races, organizations, and even the corporations themselves that could not care less about their activities on the globe, which they see as nothing but an exhaustible pool of resources and cheap labor. As one analyst puts it, instead of being a public good or a means to it, globalization has brought us a mixture of “global conflicts, global warming, international financial stability, and growing poverty” (Ersoy 2011: 225) affecting people “across regions and countries, across rich and poor populations,” as well as “peace and security, health, market efficiency [sometimes], human rights, and knowledge.” Global public goods have also been known as “global collective goods” or “international public goods.”

In this context, global public good has been described as one that “all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption.” Global public goods have also been defined as “commodities for which the cost of extending the service to an additional person is zero and for which it is impossible or too costly to exclude individuals who do not pay for the good from enjoying it” (See Ersoy 2011: 228). In this sense, therefore, public good is “non-rival” in the sense that it is a good that can be consumed by one individual, but one without diminishing “obtainability...for consumption by another individual;” a public good enjoys “non-excludability,” meaning that “no one can be excluded from using it” (Cornes and Sandler 1996).” In contrast, therefore, to redeem itself, what globalization should do is to expand and increase public goods on the globe. Ersoy elaborates his point by adding that global public goods aim at “creating an effect on both regional and international levels, sometimes even when they have characteristics of semi-public goods, club goods, etc.” This approach will ensure that globalization works to the benefit of

all peoples of the globe, poor and rich, sick and healthy, vulnerable, and socially insecure.

Ultimately, global action, as a public good in itself, includes ending wars and conflicts, eliminating nuclear weapons, controlling the transmissible diseases, helping end ethnic conflicts and refugee situations, eradicating poverty, and reducing climate change “through innovative mechanisms based on the principles of mutuality and collective responsibility” (See Speth 1999). This might be achieved through global taxation on banks all over the globe to alleviate those global health problems that require “global responses,” as the concept of public good and approaches require “the crucial requirement for global collective action” and agreement on new “fundamental principles” of action (Ersoy 2011: 236). For this approach to work, as the defenders of the global public good note, massive global and rational education starting from elementary school is needed to make everyone globally aware, among other things, of the root causes of disease, guaranteeing and sharing the appropriate global means to tackle them effectively, and protecting the ecosystem, thus accepting common stewardship of the planet, while never losing sight of the prize: respect for and safeguard of human rights, compassion, and unselfishness to end poverty.

Defenders have often argued that globalization is a social equalizer that has brought people from the various parts of the globe together for the promotion of common benefit, as it provides equal opportunities to anyone who is willing to work, take a risk, invest, and follow the laws of the capitalist market. More than anyone else, however, Okasa has dramatized the fallacy of this argument by noting that:

The global village allegedly created by globalization is not global after all. If we assume that 100 people are living on earth, 57 of them are Asians, 21 are Europeans, 8 are Africans, 6 are Americans; 48 are men and 52 are women; 30 are white and 70 are non-white; 30 are Christians and 70 are non-Christians. On the other hand, 6 people own 50 percent of the community wealth and they are all North Americans. Eighty live in poverty 70 cannot read, 30 die in famine, 1 has a higher education and 1 has a computer. It is obvious that power and resources do not seem to follow the majority/minority pattern of the world population, i.e., globalization has failed until now to democratically represent the world it has claimed to globalize. (Okasa 2005)

Usually, under the structural adjustment programs, any temporary economic gains vanish quickly as they cannot be sustained for a longer sweep

of time. A study conducted by Behrman et al. in 2000 in 18 Latin American countries affected by globalization found great imbalances in the distribution of incomes that resulted in higher inequalities in 13 cases. The worse result was attributed to the liberalization of international finance followed by domestic financial liberalization and tax reform adopted to attract foreign investments. The study also found that outsourcing, practiced by the major corporations, weakens “collective bargaining, minimum wages, and safety at work” (WHO 2011). Even the HIV/AIDS pandemic has been linked to globalization and its unintended results. Kunitz views HIV/AIDS as “a product of contemporary globalization [and] the precursor of the epidemic,” because this disease, he argues, “erupted simultaneously with, and was exacerbated by, the economic crisis that engulfed many poor countries, especially in Africa in the 1980s. That crisis had measurable demographic effects beyond those attributed to HIV and AIDS, and though they were not AIDS-related, they prepared fertile ground in which disease could take root” (Kunitz 2007: 181). In their volume titled *Medicine, Mobility, and Power in Global Africa*, editors Hansjorg Dilger, Abdoulaye Kane, and Stacey A. Lamgwick have a unique and interesting perspective on globalization. So far, most scholars have looked at it as a one-way street, benefiting only the West and those with power, what they have called “push and pull factors.”

These editors do not see globalization as a zero sum for Africa, but a movement that through the mobility created by transportation and information technologies benefits Africa and the globe, at least in the realm of health. However, starting from the premise that the 1980s and 1990s were a period of medical transformation in Africa, one may see it as the time of the privatization of health through the IMF actions, which resulted in the following: (1) inadequacies of government spending for health because of the world economic conditions; (2) the (re)emerging of infectious diseases including HIV/AIDS; (3) mobility and flight of health professionals both in and outside the continent; (4) less access to health for most people; (5) scarcity of drugs and medical equipment at hospitals, clinics, and other health facilities; (6) continued privatization and commercialization of medicine; and, worse, (7) accelerated and deeper degree of inequalities through new social, physical and economic realities, that have been attributed to globalization, which in turn rendered many people more socially vulnerable to health risk factors, often based on age, gender, and geographic location.

By taking this approach, the editors and their contributors attempted to provide a new definition of globalization. By stressing the ability of

people to move almost freely from within, from country to country, and even globally as a pronounced migratory phenomenon the like of which have never seen before, they argue that the new globalization has engendered new ways of looking at health and medicine and has resulted in new processes of satisfying the health needs of peoples in the Diaspora and those in whose countries they live. In their view, the new migratory flow is contributing to the amalgamation of new global consumers, syncretic medicines, new treatments, new clinics, new entrepreneurs in the health business, new and transformed healers, and the use of new specialized medical services such as in vitro fertilization. Thus, many healing practices in Africa are being transported to the new national and international domiciles by migrants and health professionals, who, even though abroad, continue to be fed health-wise by the traditional medical practices they were accustomed to, bringing, in the process, new clients, and new curious practitioners. These transformations are the result of the flow of migration and impact of new “ideas, goods, images, flows of money, and people between poor(er) and rich(er) countries,” brought about by globalization. In this process, Africans bring with them, without regard to borders, their cache of immemorially sanctioned medical practices in the form of “herbs, pills, blessed waters, prayers, audiocassettes of holy scripture recitations” (Dilger et al. 2012), say the authors.

After completing their analysis of the globalization movement from every possible angle, they conclude that we should not see Africa as the marginalized continent or “as a gap, the place left behind.” The editors stand by one of their contributors, Patterson, as they note that “Africa is being rigorously ‘re-inscribed’ in the world via trade, development, and economic policies that suggest an importance greater than simple marginalization...Africa is not outside of the assemblages that make up this later modern movement, for assemblage is about power, and Africa is not outside the regimes of power that give rise to the way the world may be known and apprehended” (Dilger et al. 2012: 12). Even though this is a refreshing look at Africa’s participation in the globalization movement that includes health and medicine, it leaves many questions unanswered. Who, for example, is the primary agent of the movement? Is the migration of health professionals to African countries, such as South Africa, or to the Western world? What is the level of the syncretic nature of new treatments, if not that which affects only the migrants primarily, as they continue the practices they brought with them? Who is able to compete meaningfully in the new order? Who comes up with inventions, and the initiatives for technological change? Is it driven by the migrants or the nationals of the new domicile in the Diaspora? How do

herbalists, for instance, influence the international or global community? If Africa is not the place of gaps and marginalization, is poverty increased or decreased by the migratory flow? Does it help a man in the village to own a cell phone and an impressive shiny Mercedes Benz when he cannot find housing and a place to sleep, cannot feed his family, cannot have nutritious food, is unable to go to school, does not have clean water, and still continues to defecate in the woods for lack of latrines? In essence, how has thus far globalization alleviated the plight of those Africans who live in misery and are vulnerable to all types of infectious and non-communicable diseases? Where is, in the process, the right of people to health, and how is it permanently guaranteed?

Last but not least on the point being made here, increased north to south globalized tourism, in particular, has contributed as well to prostitution in African cities and towns, as is the case in Nairobi, Mombasa, Kampala, Dar-es-Salaam, Kinshasa, and Dakar, to name a few, where, altogether, more than 5 million visitors seeking sexual gratification flock every year, resulting in millions of dollars for the local economies, but perverting the will of the local leaders who might be inclined to oppose the abuse of minors, the poor, and those who have lost hope of ever changing their lives for the better. Epidemiological studies have shown that prostitution is a breeding ground for all kinds of infectious diseases, some of which the world has never seen before, which affect particularly women and children. As Karen Booth once wrote on the vulnerability of people, especially women, to the silent side of tourism: "A global ethnography of the HIV/AIDS then has to focus on how the crisis has been fueled by transnational migration, international tourism, and the production and export of military technology, war, and refugees...It has to insist that women in one part of the world experience risk and disease and that they do partly because of the causes, parameters, *agencies, governments, and corporations that are located or headquartered elsewhere*" (Booth 2004: 3) (author's emphasis).

HYGIENE AND SANITATION AND THE HEALTH OF AFRICANS IN OUR CENTURY

Some readers of colonial health practices have derided the tendency of the colonial administrators and their physicians to consider hygiene as the most important global requirement for good health. Unfortunately, the colonialists were right in the sense that scientists have shown that unhygienic practices and behaviors can ruin and, indeed, have ruined many of the efforts put forth to provide quality care that prevents disease or

contributes to good health. However, where the colonialists erred was, first, to believe that hygiene, such as hand washing, bathing daily, washing one's face, cleaning the home, refusing to shake hands of people who appeared unclean, and disposing waste properly, were the panacea to good health and prevention of all diseases, of which they said Africans were not aware or simply refused to accept the scientific dicta. The second problem was that their health concepts and strategies did not match their actions in their daily interaction with the Africans.

A definition of the concepts of sanitation and hygiene might help here. The WHO notes that sanitation is a word that “generally refers to the provision of facilities and services for the safe disposal of human urine and feces. The word ‘sanitation’ [the definition continues] also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal” (WHO 2014a, b). Hygiene is a broader word which *The Dictionary* defines as “any practice or activity that you do to keep things healthy and clean. Washing hands, coughing into your elbow and regular house cleaning are all part of good *hygiene*.” Provision of water and latrines to African homes, cleaning up dilapidated structures that attract all kinds of insects, reptiles, and rodents, well-conceived and constant lessons about the importance of hygiene for the maintenance of public health were never European priorities. The way the British themselves described the health facilities in Kenya and Uganda is elucidating:

Some were appalling, notably the Native Civil Hospital in Nairobi, established for the workers who built the Uganda Railway, condemned in 1904, but not replaced until 1922 owing to dispute over where to locate the town's African quarter. In 1913, the Governor called this hospital ‘the filthiest sight he has seen since he came...Apart from old and unsuitable buildings, disgusting bedding, no hot water, its use as the municipal morgue, and a staff who worked only during office hours, ‘the Nursing of the hospital is likely done by boys engaged off the street in the same way one engages a house boy and teaches him his duties. (Quoted in Iliffe 1998: 3)

In order words, Europeans were highly critical of the Africans but provided few facilities and means to uplift the fate of their health. Education and cultural sensitivity were often missing in the effort to introduce good practices of behavior for the prevention of disease.

Some of these practices have persisted, even in the wake of African leaders' control of the destiny of their health and that of their people. For example, it has been estimated that every day, in Africa, 200 million men,

women, and children defecate in open air, worsening the health conditions and slowing down the efforts to eliminate poverty, disease, “and some of the poorest standards of hygiene in the world” (Patkan and Goshing 2014: 35). A recent study of 18 African countries found that the loss to GDP from poor sanitation is about 1% to 2.5% annually, representing, at the national level, some \$5.5 billion in lost revenue. In 2014, the 18 countries studied needed 25.5 million latrines for a population of 489 million to maintain the required sanitary conditions, while the annual cost of open defecation has been estimated at \$2.0 billion, affecting mostly women who are primarily responsible for the health of the household (Hickling and Hutton 2014: 31). The emphasis on hygiene, cleanliness, provision of clean water, and the teaching of African children since primary school about health issues ought to be one of African leaders’ top priorities today.

Studies have also shown that most infectious diseases could be eradicated through simple hygienic practices. Sadly, when one visits the African villages, he or she is appalled by the prevailing unacceptable state of hygiene among children and even adults, which prompts one to ask how these conditions are tolerated in the twenty-first century. Children play and grow in a depressing and depressed environment, one that could be changed without requiring too many resources, except awareness campaigns and water provision where there may be no rivers, springs, or lakes. In 2014, funds allocated to sanitation across the whole continent amounted to less than 0.1% of GDP (Hickling 2014: 29). It has also been found through research and experience that people who have toilets behave better hygienically than those who do not. Unfortunately, other studies have also demonstrated that poor sanitation and poor hygiene are associated with a host of frequently occurring diseases such as diarrhea. It is unacceptable that Africa would still remain “the only region in the world where diarrhea is the leading cause of child mortality and where promotion of sanitation and hygiene offers a cost-effective means of tackling this” (Hickling and Hutton 2014: 26).

Clean pipe water made available to homes or on the main “plaza” not too distant from households should, therefore, be a major priority here. What is saddening is the fact that African leaders and health officials, using precious and scarce resources, make constant pompous visits to the people who live under these miserable conditions and hear them but do not listen to their fellow citizens’ complaints about their hygiene, sanitation-related needs, and the unhealthy lives they lead. They cherish and receive the applause of the people and then return, without remorse, to the comfort

of the cities and their “palaces” where their children have all they can possibly need and want. The point being made here is that hygiene, cleanliness, and sanitation prevent diseases and save lives. The International Scientific Forum for Home Hygiene (IFH)(1) notes that “...a significant proportion of the global infectious disease burden is caused by diseases that are hygiene related (i.e., transmitted via food, water, fecal and other waste material, hands and other surfaces, and via the air).” The IFH (1) adds that, within the home and household, setting standards of hygiene related to hand washing, food handling, and water, “and the disposal of feces and other waste materials from groups of people who are infected, are key factors which determine the infectious disease (IDs) burden within and between communities” [(IFH)(1) 2009: 1].

Incidentally, guinea worm disease, very common in the villages, is easy to prevent: filtering water with a cloth can do it, and, from 1986 to 2013, the world eliminated about 97% of the cases. However, most of the remaining cases are found in 13 African countries. Indeed, hand washing with soap alone “prevents transmission of pathogens from person to person by interrupting the pathway to contagion.” Put another way, “hands often act as vectors that carry disease—causing pathogens from person to person through direct contact or indirectly via surfaces and foods” (Carol 2014: 53). Therefore, one is justified to ask the following question: When will African leaders understand and get convinced that providing running water and soap to their people is one of the most basic, cheapest and most effective ways of fighting “a host of illnesses, such as helminthes (worms), eye infections like trachoma, and skin infections like impetigo,” and, even better, the prevention of the common epidemics of diarrheal disease on their continent? (Carol 2014: 53). In fact, clinical studies have shown that simply washing one’s hands can decrease the incidence of diarrhea infections by 47% and that lung diseases and complications, such as common colds, the flu and its complications, including pneumonia, could be reduced by 23%.

The WHO noted years ago, for example, that “for every one reported case of *Campylobacter*, *Salmonella*, rotavirus and norovirus, another 7.6, 3.2, 35 and 1,562 cases, respectively, occur in the community.” Scientists have gone so far as to warn that, even for HIV/AIDS, malaria, diarrhea, and TB, “good hygiene was the most cost effective means of prevention” (see Azevedo et al. 2014: 50). We might quote here the finding of a study

conducted in one neighborhood in the UK, one of the most developed countries in the world:

Child carers washed hands with soap after changing a dirty nappy [diaper] on 42 percent of occasions, and...one in five toilet users did not wash hands with soap afterwards. Microbiological samples were taken from household surfaces at sites thought likely to be involved in the transfer of fecal material...Fifteen percent of bathroom samples showed contamination with polio vaccine virus. Nappy changing took place mainly in living rooms. Contact with living room surfaces and objects during nappy changing was frequent and evidence of fecal contamination was found in 12 percent of living room samples. Evidence of fecal contamination was also found in kitchens, again on surfaces thought likely to be involved in the transmission of feces (taps and soap dispenser). (Curtis et al. 2003)

The WHO has been clear about the close association between maternal and child mortality and the state of water, hygiene, and sanitation. This is particularly critical in the developing world. The situation is aggravated by the fact that child deliveries in Africa, most of which are done by traditional midwives, occurs in a home milieu that often lacks water or clean water and latrines or toilets for both mother and the midwife, which has led to continuous preventable infections. The health facilities are also a problem, as 38% of them do not have water, do not have hygienic practices, and where sanitary conditions are extremely poor. Thus, in 2013, the WHO adds, 289,000 women died during pregnancy and childbirth, even though the mortality rates have decreased by 50% between 1994 and 2014 (Mis, *Rueters* 2014: 1).

Indeed, for delivering women, clean water prevents sepsis or cord infections and decreases the chances of transmission of infections to the newborn. The clinics are visibly not clean This is not helped when the child goes home, as many homes do not have water, which often must be fetched at relatively long distances. Critics complain that the MDGs do not make a clear association between maternal and infant mortality, to the extent that good treatment at the hospital is not enough: water, hygiene, and sanitation are as important (London School of Hygiene and Tropical Medicine 2014). The *Journal of Political Studies (PSO) in Medicine* notes the importance of government in this respect because, they note, “We have known since Victorian times about the importance

of clean water and good hygiene in birth. Yet today tens of thousands of mothers will be giving birth in places where doctors and midwives, if present, do not have access to clean water.” In fact, in Tanzania, for example, says Lena Benova, of the London School of Hygiene and Tropical Medicine, 50% of the women who die giving birth die at home “and almost none of these homes have clean water and basic sanitation.

Studies by World Vision indicate that of all interventions available to the organization’s hygiene promotion is the “most cost-effective” and that the cost per DALY saved is just a bit more than \$3.00, compared to a cost per DALY of \$94, “for a well equipped with a hand pump.” Other studies have shown that teaching a midwife to wash hands before delivery of the baby can reduce neonatal deaths by 44%; that, if children are taught to wash their hands with soap before eating, and after using the toilet, diarrheal diseases in the home can be reduced by 47% (World Vision 2011a, b: 1); and that 70% of the diarrheal ailment cases are caused by contaminated food, which are mainly a result of unclean hands. The following are the known benefits of hand washing, hygiene, and sanitation:

1. Hand washing with soap may prevent half of diarrheal deaths, one-third or more of neonatal deaths and one-fourth deaths from pneumonia
2. Some two million deaths for children under-five are preventable as well as for 200,000 deaths from measles, flu, and infectious diseases a year
3. Face washing with clean water, on the other hand, can prevent at least one-third of active trachoma cases, preventing 1.9 million cases of blindness
4. Hand washing can reduce absenteeism of children from school by 54%, if water and soap are provided at school
5. Because of the stigma against girls in schools and the fact that (unsanitary or sanitary) latrines that are not gender-specific contribute to girl’s dropping out of school during their menstrual period
6. Wash committees in every village might be a good approach to ensuring women have a voice in the provision of clean water, sanitation, and hygiene
7. Proving education to women goes a long way in preventing disease and deaths due to contaminated water, as “children of educated mothers have a better chance for survival—the mortality rate of chil-

dren from mothers without education is more than twice that of women with secondary education.

When these are provided along with other associated needs, the results are multiplied. Indeed, the now known Mills-Reincke Multiplier, made popular by the two researchers Mills and Reincke of the city of Hamburg, Germany, in 1893, showed the many health results of combined water, sanitation, and other health elements are multiplied because “access to clean water is a prerequisite to maximize the health impacts of sanitation, and effective sanitation is a prerequisite to maximize the health impacts of safe water, the median reduction in all cases of child deaths, when the two are joined, is 55%” (see World Vision 2011a, b: 1). Studies have, as well, demonstrated that “the net impact of diarrheal deaths among children younger than five of providing access to safe water is only 3% to 5% if unaccompanied by other interventions, whereas providing access to effective sanitation reduces such deaths by 5% to 10% (latrines) up to 20% (flush toilets).”

It is also known that non-foodborne gastrointestinal infections are transmitted from human to human through unclean or contaminated hands and surfaces, or by breathing particles resulting from an infected person’s vomit. Pets, such as dogs, cats, and birds, which are common to US homes, are easily susceptible to carrying infectious diseases and may cause campylobacter, salmonella, *Staph aureus*, and *Clostridium difficile*. Unfortunately, pets are now taken into restaurants, hotel rooms, eat expensive meals that are often better tasting than man’s, and are easily carried on airplanes without consideration that they may cause allergies and bouts of asthma, wheezing, and coughs in persons sitting beside the animal. In many homes, dogs, for example, are considered and treated as members of the family, and are often treated better than human beings. Yet, in the US, 39% of the dogs may carry campylobacter, and between 10% and 27% may be carriers of salmonella.

Studies of MRSA, for example, a contagious and antibiotic resistant staph bacterium that can cause serious infection, have shown a strong association between hygiene and this infectious disease that afflicts children in particular. We are all too familiar with the situation in Africa, where people and animals tend to live in close proximity and where children play in dusty streets, in ponds, and in and around waste disposals, where water is a scarce commodity in the household for them to wash up before going to sleep. In some places, floods are common, putting entire villagers at risk. Flooded areas constitute the favored environment for the

breeding of deadly types of insects and rodents. Yet, the leaders act as if nothing that is happening deserves their attention. Were this to happen to their own children, they would rush to use the national resources to take care of them! Similar problems with hygiene and cleanliness can be seen in African hospitals and health centers, which are sources of serious but preventable nosocomial diseases, at establishments that should be impeccable in hygiene and sanitation. These conditions on the continent are aggravated by the low degree of literacy that barely enlightens one on the health risks and the need to know the modes of disease transmission and prevention.

As a result of the lack of understanding of the need for hygiene and proper sanitation, it is said of Africa that, “sanitation coverage on the continent remains the lowest of all major regions” and, even though it “enjoyed a decline in the proportion of people practicing open defecation between 1990 and 2006... the absolute number in this practice actually increased from 185 million to 224 million during the same period” (Yaya 2010: 93). Lagos, for example, has been known as the “filthiest of all megacities” in the world, and access to improved water is available only to the upper and middle income citizens in the city’s districts. The rest of the city uses its own means to attempt to dispose domestic and human waste, such as defecating in plastic bags, which has becoming a popular method to improve human waste collection and disposal, according to Adedibu and Okekunle (1989), in a city that lacks a working central waste disposal sewage system—a common occurrence in almost all African cities. People simply dispose all their waste, domestic, industrial, and human, into the environment, in rivers, open fields, markets, streets, open spaces, bus stations, the back of a house, and car tires, frustrated with the constant clogging of pipes in the homes, caused by untreated sewage and solid waste (Yaya 2010: 115).

Public toilets in the city are few and the municipalities either do not have the regulations on hygiene and sanitation or simply do not enforce them, when they exist. Abidjan is said to be one of the most sanitary major cities, but the figures show that only 10–30% of its population is connected to standard sanitation facilities” and with only 20–30% of the urban population having access to improved sanitary structures. Despite its many big rivers such as the Congo and myriad smaller ones, Kinshasa is also one of the filthiest cities in Africa. Accra, in Ghana, where one finds public signs saying “DO NOT URINATE AGAINST THE WALL,” is not as bad in this respect, but it is an exception in West and Central Africa,

which is seen as the worse region in sanitation on the continent. About 37% of the population of Ghana has no indoor toilet facilities, and in many areas, where there are latrines, no flush toilets exist or faucet water for people to wash their hands. Where there are flush toilets, wastes are discharged into the household septic tank.

The reasons for these conditions are multiple. First, may be the topography: lack of rivers and lakes, dry areas, and colonial legacy, which concentrated its attention on the cities where the white colonial population lived, modeled after the European towns of the time. These were inherited by the African elite, forming enclaves of improved sanitation and sewage disposal. Thus, the difference between town and country is 37% for the former and 17% for the latter (Yaya 2010: 98). Another is lack of better organization and the selection of the best department for water and sanitation. Virtually each African state has its own allocation of this responsibility, from the Department of Public Works as during the colonial period to the Ministry of Transportation, Mines, and Telecommunications (in Cameroon), the Ministry of Urban Planning and Housing and Ministry of Water, and Ministry of Public Health (in Chad), the Ministry of Health and Social Welfare and Ministry of Public Works (in Liberia) (See Yaya 2010: 106–107). Wars have been devastating in that they have not only killed people but also destroyed health, sanitation, and water infrastructures, as has been the case in Cote d'Ivoire, where 70% of its health infrastructure has been destroyed by the civil war. Poor data availability has also been named one of the major obstacles, as no rational decisions can be made without assessment of needs, and the recorded actual conditions on the ground, and fair or equitable distribution of resources and infrastructure projects.

CONCLUSION

Corruption and lack of freedom, important components of Africa's political economy, have undoubtedly slowed Africa's march towards providing improved health care to its citizens. The promise of democracy in Africa is seen by every analyst as a sham. Indeed, despite a stream of (phony) elections, the same governments have continued to govern in a corrupt and repressive environment for decades; where the national resources are plundered and distributed among the privileged few; where literacy rates are low or average; and where women are still discriminated against and treated as second class citizens, with little to say on issues of domestic health and where they cannot negotiate their status. Above all, how-

ever, leaders must understand that it is essential to realize that health systems are more than health care; that they also include efforts in disease prevention, health promotion, and advocacy for policies that address health concerns; that “improved health contributes to social wellbeing through its impact on economic development, competitiveness and productivity and that a high-performing health system is a key contributor to this process” (ECOSOC 2009: 21–22). Others point out that, despite the challenges Africa faces in health, it has advantages that it did not have many decades ago, namely, preventive methods, accurate diagnostics, and the most effective treatments. What the leaders need to do, of course, is to make the needed resources available and use “the mechanisms necessary to deploy them appropriately to resolve the critical challenge of access [to health] and equity” (Yaya and Ileká-Priouzeau 2010: 66). On equity, the two authors (2010: 68) note that “la fonction et la qualité principales d’un système de santé résident dans leur capacité à assurer une égalité d’Access, que celle-ci soit financière, géographique ou autre, a des soins de qualité pour l’ensemble des collectivités.” In other words, for a health system to function optimally, it must have the ability to provide equal access to the citizens, be it in the form of finances or geographic location.

In addition, it must be said that globalization is here to stay but it does not mean that we cannot look at its dark side and do the best we can to challenge it and correct its inherent negative impact, its inhuman tendencies, and its intrinsic materialistic nature. We need to tame it and make it work for the good of all societies, thus, the merit of the concept of “global public good.” Indeed, as this author has argued in the past, “If globalization is properly managed, it can advance the state of the health systems globally and people’s health but only if the domestic markets are truly competitive, regulatory institutions strong, asset concentration moderate, and unfettered access to public health equalized and widespread, if social safety nets are in place for everyone, and the rules of access to global markets are non-exclusionary” (Azevedo and Johnson 2011: 178). Only then, as says one analyst, “can globalization reduce opportunistic behavior, operate economies of scale [fairly], reward efforts and entrepreneurship, improve employment opportunities [for all able members of society], raise earnings, and reduce the price of consumer goods,” while combating inequalities and extreme or absolute poverty on the globe we share. Studies have shown that unscrupulous globalization efforts have ruined the lives of farmers in many regions of the world, as happened during the 1990s in Zambia, Chile, the Philippines, and Ghana. Zambia, for example,

unable to compete on the world market, lost 30,000 jobs and 132 of its 140 textile mills, which resulted in the loss of 40% of manufacturing jobs within eight years from encouragement by the World Bank to open its borders to cheap textile imports.

The harmful impact of the IMF adjustment programs in most of Africa receiving the loans is no longer in dispute. Parsitau, as most critics have done, argues that maternal and infant mortality spiked during the 1980s from both the economic recession and the SAPs, a conclusion that is upheld by UNICEF. Many health facilities, clinics and health centers had to close as a result of the deteriorating economic conditions and with the distance to the hospital being on average, 6–7 kilometers pregnant women and mothers found it difficult to meet their health needs. As a result of the co-payments, expecting mothers at Nakuru District Hospital in Kenya were now required to purchase and bring “gloves, surgical blades, disinfectants and syringes in preparation for childbirth...In addition, they [had] to bribe hospital personnel in order to be attended to” (Parsitau 2008: 195). Consequently, many women simply decided to use the traditional midwives rather than the hospital nurses. This happens also in Tanzania and in many other African countries.

A 1998 Kenya Demographic Health Survey showed that the health gains of the first 25 years of independence almost immediately disappeared after the introduction of the SAPs. At the National Kenyatta Hospital, the largest in the country, user fees were introduced in 2004 and this, along with less access to other health facilities and quality health care and nutrition, worsened poverty and the impact of HIV/AIDS in the country. The study revealed that life expectancy at birth fell rapidly and visits to the hospital were dramatically reduced. The SAPs in Kenya and in most countries that received IMF loans aggravated the situation women face in Africa, “who are already stressed, overworked, depressed, and generally unhealthy” (Parsitau 2008: 198)—not to mention those that are abused, and where male children are preferred over female children for school, clothing, food, and careers outside the home, most notably in the rural areas. This situation can only be blamed on the leadership, whose priorities lie elsewhere both regarding the health of women and young girls, made loudly clear in the way the so-called scarce resources are allocated nationally.

This chapter has demonstrated how harmful the lack of universal insurance is in all of Africa. The problem with the schemes being experimented with in Africa today—which combine or single out public, private, commer-

cial, philanthropic, traditional, and informal health insurance providers—is that they are ineffective and confusing. This causes problems to the ability of the health sector to fulfill the health needs of the insured and non-insured citizens, ending up by shortchanging the poor, the vulnerable, and those who are the least influential members of society. This occurs in a poorly conceived health system that cannot cover or expand its resources to ensure the availability of and access to most health services, such as immunization, adequate birth attendance, and maternal and child morbidity and mortality prevention programs. It has been demonstrated that “neonates represent about 40% of children who die before their fifth birthday and that 20% neonatal deaths globally occur in Africa. The African Region’s neonatal mortality is the highest in the world” (WHO *African Region Health Report 2013*: 19). In sum, Africans need to conceive and implement effective and efficient national health models that protect the health of all its citizens, especially mothers and children. It is clear, however, that countries’ presidents and heads of state, government ministers, health ministry secretaries, and most high level civil servants have no problem covering the health costs. Why is this so? Who foots their bill, and where do the resources come from? The answer is self-evident. Obviously, all these problems are exacerbated by the high levels of poverty that plague the whole continent of Africa, especially Sub-Saharan Africa, regardless of the nature of the colonial system experienced, and notwithstanding the available resources that could cut by half the index of people’s misery.

Finally, the importance of the issue of hygiene and sanitation seems to vex Africa, even though it has an impact on virtually all components of disease and pestilence. It is in this arena and in that of maternal and child care that the continent has the chance to turn things around for the better. Thus, despite all the natural environmental and social obstacles, Africa can do better. Understanding this does not require a rocket scientist or a Ph.D. in environmental studies: It requires only common sense and sensitivity to the lives of people that have been entrusted to us. Put differently, the intolerable state of hygiene and lack of awareness of its importance for the prevention of disease rests solely on the shoulders of the leaders, given that, in most cases, the resources for providing the basic means to at least 90% of the citizens, including those living in the villages, are there. The same remarks can be made of the sewage systems in Africa and the waste that is found undisposed of in many towns and cities. However, for the change to happen, leaders must be reminded constantly of the awful conditions under which people live and realize the number of lives the

lack of sanitation and hygiene ruins. Likewise, one does not need to have a degree in public health and economics to understand that, financially, prevention is always better in the long-run than trying to take action when epidemics, such as cholera or meningitis, hit a population. Over 144 studies conducted during the 1990s and earlier revealed that, if water supplies and sanitary conditions are sufficiently improved, diarrheal mortality would be reduced by 50 to 80%—of course, “depending on the types of intervention and the presence of risk factors such as poor feeding practices and maternal literacy” (WB, *Better Health* 1994: 31).

As one study noted, in the process of providing better services that promote hygiene and sanitation, leaders must look at action through “an equity lens,” realizing that this is a human rights issue, and that all citizens must be given equal and fair treatment, with no preference for certain segments of the population or the place where the elite lives. However, this must be done with extreme sensitivity, as is the case of trying to eliminate defecation in open air, which involves issues of privacy, stigma, important cultural norms, and the concept of human dignity (Patkan and Goshing 2014: 42). One example might perhaps serve as inspiration for many African countries. To improve sanitation and hygiene, immediately after Zimbabwe became independent, the leaders created the Ministry of Rural Resources and Water Development, allocating some Z\$1.3 billion in 1997–1998, which became an important sign and symbol that the leaders saw the importance of programs designed to improve the lives of people who did not live in the cities and towns. This made a major difference in the lives of the Zimbabweans across the country. Unfortunately, as a result of civil unrest and unwise economic and social policies, Zimbabwe’s health system has virtually collapsed and people’s living standards deteriorate by the day.

To realize the easily attainable dream, leaders of clean water and sanitation, decision-makers, scientists, and public health practitioners would have to keep in mind, as experts tell us, that interventions must be well thought out in advance, carefully assessing several factors: people’s perception; social norms regulating behavior; prospect for self-efficacy once citizens have been enlightened; understanding why many Africans would prefer the open bush rather than the confined, closed small mud or cement structure to relieve themselves among children who are constantly playing around; appropriateness of a latrine structure or restroom in terms of a roof, guarantee of privacy, provision of water, soap, and a sink, and the type of environment surrounding the facility itself (see Aunger and

Coombes 2014: 45–52). Changing habits, as we know, is always difficult and even painful, especially if they are firmly engrained in a culture—one reason why many heads of households sometimes refuse to use a commode or a latrine even when available. It is good to remember that, in most of Africa, a father-in-law, for example, would not leave his bodily waste in the same spot as his son-in-law and would feel uncomfortable, as well, to live in a house whose dining area and a latrine are built side by side, even if separated by a wall. It appears that, as a result of the pledges to reach the MDGs by 2015, African countries are becoming more and more aware of the need for a sound waste management system and water improvement. In addition, international agencies are contributing both to awareness and to the actual provision of systems that are helping Africa come out of its long history of neglect of the health aspect of the issue at hand. Sanitation neglect has made Africa the worse continent on water improvement and provision of a clean environment that is conducive to health, longevity, and proper disposal of human, industrial, and animal waste.

Much has been said in this chapter, and the prior volume for those who have followed the writings of this author, about the colonial roots of the many of the problems that Africa has. Even though it is a cop out to blame colonialism for the health ills of the continent today, its legacy cannot and should not be ignored, though many analysts tend to develop amnesia about most that befell Africans for over a century. The impact of the ghost of colonialism, as discussed in this volume, is clearly reflected in the colonial health models that are still being followed in Africa's medical, academic, and professional schools, including legal training and constitutional frameworks. Colonial health models have failed to examine and take into account all factors and root causes that led to unending epidemics and the impact of famines and thinking patterns that continue to curse Africa. Even when discussing the HIV/AIDS pandemic that hit Africa harder than any other continent at the beginning of the 1980s, researchers and health practitioners, both African and non-African, were nothing but pseudo-experts and scientists who, imbued of a colonial mentality, were quick to point the finger at Africa's promiscuity as a major reason for its spread on the continent and failed to examine some of the historical roots of the crisis, which included: the plundering of the African productive lands for over 100 years, thus causing numerous famines particularly during the 1880s–1920s, rendering Africans' immune system weaker; the migratory movement caused by colonially forced dislocation; the rapid changes that impacted sexual mores; poverty that made women and children more vul-

nerable to predatory men of money and power; deterioration of the state of hygiene, a condition that can easily help spread infectious diseases; the increased level of prostitution to satisfy the lust of international travelers; and the legacy of armed colonial men that fought wars in Africa and abroad in World War I and World War II, all of which enhanced the spread of sexually transmitted venereal diseases. As a result, the long presence of a higher number of venereal diseases and other infections was responsible for the quick spread of HIV/AIDS, as shown by experts such as Kunitz, who wrote:

The colonial legacy must bear some responsibility for the conditions that made Africa vulnerable to this deadly disease, that is, HIV/AIDS. Indeed, while colonialism interfered with agricultural productivity, globalization, the economics of scale and contentious, ethnic-preferential, and rigged politics contributed directly and indirectly to malnutrition and skewed distribution of resources that left many Africans at the margin of society in their own continent.

The forced risks and practices imposed on Africans prior to and following independence could only bring misery and famine to vulnerable populations, especially when the weather conditions brought drought or flooding, which constitute favorable breeding grounds for locusts, rodents, mosquitoes, flies, ticks, and hookworms. This burden not only contributed to ill health but also compromised the immune system, “poverty, and undernourishment [and malnourishment], which facilitated recurrent epidemics of measles and whooping cough and other diseases right up to 1945. The epidemics resulted in high infant mortality,” as was the case with the 1918–1919 influenza epidemic, which the Nyamwezi jokingly called “*bom bom* because the explosive cough reminded them of the noise of the cannon” (Ranger 1992: 262). What explains the fact that, while measles has virtually been eradicated throughout the world, Africa stills experiences many local epidemics? Indeed, while from 2000 to 2001, the number of deaths from measles worldwide was reduced from 542,000 to 158,000, respectively (*Medecins Sans Frontieres* 2014), the dead toll continued to plague the continent of Africa. In sum, to understand the state of health in Africa today requires a careful and comprehensive analysis of all risks, past and present, to which the continent has been subjected, including a highly erratic and selfish type of leadership, quite often imposed on the Africans and supported by the West, as has been the case in Chad, Cameroon, and Equatorial Guinea.

NOTE

1. The following five pages were published by the author and are reprinted by permission by the *Journal of Infectious Diseases* and co-authors Francis Bwambale and Thomas Kiiza in *Photon*, Vol. 113 (2014): 239–263.

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