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UNU-Cornell Africa Series

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I. Overview

In 2000, the UN General Assembly adopted the Millennium Development Goals (MDGs) to galvanize global efforts and set concrete deadlines to improve the condition of the world’s poor in key areas of development. Africa was and remains a central focus. Yet, despite the unprecedented efforts made in recent years in support of Africa’s development, the situation on most of the continent remains challenging. Today, the best evidence indicates that Africa will not achieve, in time and in full, the objectives of the MDGs.

The reasons for Africa’s lack of success in achieving the MDGs are complex and not well understood. Contributing factors include the decay of African state institutions, the reluctance of the international community to meet its commitments, and fundamental knowledge gaps in critical areas of development that prevent the formation of sound policies. In this regard, the development community faces the following paradox: whereas the African continent is one in which the international development community is most heavily engaged, the depth of



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knowledge, both quantitative and qualitative knowledge, is often limited or missing in this region in crucial areas of health, environment, security among others, as well as in their interrelationships. The complete lack and/or underdeveloped state of statistical data in a number of these strategic areas for African development is a case in point.

It is against this background that the United Nations University and Cornell University have collaborated to map out, via a series of conferences (The UNU-Cornell Africa Series), the state of scientific and policy knowledge in the following critical areas: *Food System and its Interactions With Health and Nutrition* (13 November 2007), *The Governance Dimension of the MDGs in Africa* (21 May 2008), *The Social and Economic Dimensions of HIV/AIDS in Africa* (9 September 2008), Sustainable Environment (tentatively Spring 2009), and Higher Education (tentatively Spring 2009). A final event, to take place in the Spring of 2009, will outline the lessons learned from the preceding events and make policy recommendations. This Africa Series is not an end in itself. Through this process the UNU and Cornell, in cooperation with UN agencies and academic institutions in and on Africa, will contribute to advancing fundamental knowledge and policy formation in the aforementioned areas in the African context, and thereby strengthen future capacity development initiatives in the region. This joint effort is also meant to contribute to the high-level meeting on “Africa’s Development Needs”, which will be held during the 2008 UN General Assembly and UNU’s Africa Strategy.

The Africa Series will bring together leading academic experts on Africa from around the globe, with many being from Africa, as well as UN, international organization and NGO practitioners. Volumes are envisioned to be published from the proceeding of these events by the UNU Press or Cornell University Press. An online forum will be created to engage more participation in the discussion of the key areas of the Series. Multimedia will be used to maximize interaction outreach of the Series through webcasting the events and video conferencing with universities and experts in Africa.



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II. Programme Overview

Food System and its Interactions with Health and Nutrition (13 November, 2007, see Appendix 1 for the agenda):

- The interaction between food systems and human health in Sub-Saharan Africa
- Strengthening the role of Sub-Saharan African women in the food systems to achieve nutrition and health goals
- Strengthening rural markets and infrastructure in Sub-Saharan Africa to reduce poverty and hunger and improve health
- Promoting agricultural development to achieve the MDGs for the alleviation of poverty and hunger

The Governance Dimension of the MDGs in Africa (21 May, 2008, see Appendix 2 for the agenda):

- Governance at the regional and sub regional levels
- Effectiveness of aid and poverty alleviation
- Capacities and the governance of the African state
- Public finance, accountability and governance

Social and Economic Dimensions of HIV/AIDS in Africa (9 September, 2008. See appendix 3 for the agenda):

- Macroeconomic impacts of HIV/AIDS
- Impact of household income and livelihoods
- Impact on children and youth
- Behavioral modeling of the prevalence and spread of HIV/AIDS
- Risk behaviors and preventing HIV/AIDS
- Opportunities and constraints in the roll-out of anti-retro viral therapies
- Gender equality and empowerment
- Political and institutional failure

Sustainability and Environment (tentatively spring 2009)

Higher Education (tentatively spring 2009)

Recommendation and the Way Forward (conclusion session) (2009)

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III. The Secretary-General Message to the Inaugural Symposium of the Africa Series Initiative of UNU and Cornell University

New York, 13 November 2007

I am delighted to send my warm greetings to all participants in this inaugural symposium of the *Africa Series*. I congratulate the United Nations University and Cornell University on this important initiative, designed to bring a much-needed spotlight on Africa's needs in the field of development.

As we all know, this year marks the mid-point in our race to achieve the Millennium Development Goals, adopted by all the world's leaders as our common vision for a better world in the 21st century. Many African countries have made good progress towards the Goals. But overall, the continent is not on track to reaching our shared development targets by 2015. Much more needs to be done if Africa is to halve extreme poverty, reduce maternal mortality, reverse the spread of HIV, promote gender equality and attain the other Goals on time.

Reaching the Millennium Development Goals in Africa requires a strengthened global partnership. It demands shared responsibility. And it requires a collective effort -- one which brings in Governments of developed and developing countries alike, the United Nations system, civil society, the private sector, and individuals around the world.

That is why I am encouraged by the *Africa Series* initiative of UNU and Cornell University. Academic and research institutions have an important role to play in promoting development. They are essential for the advancement of knowledge and its dissemination in policy circles. Scholars have demonstrated the vital importance of knowledge in understanding the complexities inherent in combating extreme poverty and in charting out a sustainable path for economic development.

Academic and research institutions also make important contributions to capacity-building. And they provide new and innovative ideas for how the United Nations, and the entire human race, can tackle our development challenges.

I am confident that today's symposium will mark the beginning of a fruitful and constructive series of discussions on key development issues facing Africa. But this *Africa Series* is not an end in itself. By recommending concrete actions in areas of strategic importance to the continent's development, you will be active participants in our global effort to end the scourge of poverty and inequality once and for all.

In that spirit, I wish you a most productive and successful conference.

(<http://www.un.org/News/Press/docs/2007/sgsm11275.doc.htm>)

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IV. The Deputy Secretary-General's Remarks for “the Social and Economic Dimensions of HIV/AIDS in Africa”, The Third Symposium of the UN University and Cornell Africa Series

New York, 9 September 2008

Ladies and Gentlemen:

I am honored to speak at this third Symposium of the United Nations University and Cornell University Africa Series. All the themes selected for this series are of critical importance to Africa, and non more than HIV and AIDS.

The pandemic, in many parts of the continent, is eroding the developmental gains of the post-independence era. The challenges require our collective thinking and I am heartened you are gathered here to take on this task.

As you are well aware, Africa is the continent so far most affected by HIV and AIDS. Estimates show that in 2007 alone, 1.6 million people in sub-Saharan Africa died from AIDS. Another 22.5 million people are living with HIV.

The epidemic strikes at the core of human development, killing young adults at the prime of what should be their most productive years. Loss of life and the weakening of human capabilities deprive communities of their most valued resources.

For high-prevalence countries, the epidemic systematically deprives sectors -- such as health, education and agriculture -- of skilled workers, thus reducing overall national productivity. Many of these sectors heavily impacted are already struggling, and the multiplied effect is crippling.

Assessing the overall economic impact has not been easy. Several studies, using a variety of economic modelling approaches indicate that the epidemic reduces the average GDP growth rate by between 0.5 and 4 per cent in most affected African countries. Whether the figure is 0.5 or 4, it is a big loss for poor countries whose economies need to be growing rather than contracting.

And yes, academic rigour is essential, but I encourage researchers to also think about our needs. It would be most helpful to draw policy conclusions that organizations like ours and NGOs working in Africa could use to strengthen their activities on the ground. It would also help African governments in preparing their strategies.

We also need more information on the exact nature of the disease in a particular area. AIDS has a different impact, both between and within countries. I think the Commission on HIV/AIDS and Governance in Africa characterized this well when it noted in a recent report that Africa is suffering from several epidemics.

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Within southern Africa, some cities are showing a declining rate of infections, while in others the rate is still rising. In parts of southern Africa, young girls and women have up to six times the infection rates of their male peers. A lot has been written about these variations, but not enough of these observations have translated into policy or national intervention strategies.

Take the example of Botswana, a relatively successful African economy, where the prevalence rate in the general population is 17.1 percent.

Botswana's annual GDP growth averaged around 13 percent, from independence in 1966 to 1989. Yet when the effects of AIDS began to be felt, from 1990 onwards, average annual GDP growth dropped by more than half to 6 percent. Life expectancy at birth also fell sharply from 65 years in the 1990 to 1995 period, and to less than 40 years between 2000 to 2005.

All across Africa, individuals and communities have responded to the challenge with remarkable courage and initiative. Yet their untold suffering raises some important questions:

How are individuals and households altering their behaviour in an environment where life expectancy has dropped like this? Will people be willing to invest in the future, or will they feel they have no future? How will entire societies adjust to the loss of parents, partners and many others in the prime of their economic life?

Ladies and Gentlemen:

Some answers can be found by conducting studies that focus on individuals, households and small businesses, to show the local impact of the disease and guide policies and action.

Household studies done in Ethiopia, Malawi, Uganda, Zambia and Zimbabwe show that affected families are spending more on medication and have lower incomes due to time spent either ill or caring for sick relatives. Businesses also suffer through absenteeism due to the ill health of a worker or a member of the worker's family, higher medical care and benefit costs, funeral costs for employees, attrition due to illness or death and efforts to recruit new staff.

Research efforts should recommend policies for inclusion in national strategies for dealing with the disease. To date, few studies have been able to incorporate household level information into national action plans. I am encouraged that this symposium will be discussing research methodologies.

Researchers often complain about the lack of accurate statistics in many African countries, which makes it difficult to gather information for scientific evaluation. I would like to emphasize the importance of local knowledge here.



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Use local universities and local research centres to systematically document information. They are based in Africa, are working in Africa and living in affected communities. This will improve the quality of information available.

I commend this forum for inviting speakers and experts working and living in Africa to participate. But beyond this, I would like to appeal to the United Nations University, to Cornell, and to all researchers and universities represented here today, to develop a durable partnership with African institutions.

International organizations should also commission more work from African institutions. Knowledge provides a key to development. Where this is lacking, African institutions are best placed to fill this gap. Such collaboration will connect them directly to the international research agenda, while keeping skilled manpower on the continent.

Dear Friends,

Stigma is a lingering critical issue in fighting HIV. Almost everywhere in the world, discrimination remains a fact of daily life for people living with HIV, men-who-have-sex-with-men, injecting drug users and other communities at risk.

Stigma remains the single most important barrier to public action. It is the main reason many people are afraid to see a doctor to determine their status or to seek treatment. Stigma helps make AIDS a silent killer because people fear the social disgrace of speaking openly about the disease, or taking easily available precautions.

And stigma is a big reason the AIDS epidemic continues to devastate societies all across the globe. We see this clearly when it comes to young women, the group most at risk of contracting HIV in several countries. Many of them are afraid to seek advice on prevention. Many do not trust the confidentiality of voluntary counseling and testing. Outreach programmes need to target young women directly and legislation must protect them against reprisals.

We can fight stigma with enlightened laws and policies. But more importantly, these policies have to be vigorously enforced. In many countries, good policies exist on paper only with no commitment to enforcing them. In areas where legislation protecting women is enforced, and where inheritance laws recognize women's rights, they are less vulnerable to infection.

This calls for leadership at all levels of society. From Presidents to teachers, religious and traditional leaders, the media-- we all have a duty to speak out loudly and clearly against discrimination.

The Secretary-General has shown leadership in the fight against HIV. This will remain a priority for him. He has further demonstrated this commitment by meeting regularly with staff members

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living with HIV and listening to them. He often uses personal experiences garnered from these meetings to campaign against stigma and discrimination.

The entire United Nations family is committed to this fight. Joint UN country teams are working to strengthen nationally owned, multi-sectorial responses through coordinated programmes, providing technical support and acting as brokers with crucial partners -- notably civil society, including people living with HIV.

UNAIDS brings together the efforts and resources of ten UN system organizations in the AIDS response. Specific to development efforts, UNDP works with African countries to strengthen macroeconomic frameworks that promote sustained financing of AIDS responses and increased access to low-cost quality medication for those in need.

The fight against HIV and AIDS is one that, collectively, we can win. The world has seen and defeated several epidemics before. The Millennium Development Goals call for a halt to new infections and a reversal of the spread of HIV by 2015. As part of this effort, universal access to treatment must be achieved by 2010. We must also leverage the lessons and successes of the response to AIDS to other health-related MDGs.

Dear friends,

You come from various backgrounds and you have dealt with the range of topics before you, sometimes in different ways. I trust that you will have stimulating conversations and benefit from the experiences of your peers.

Your work must succeed, there is no option for failure. And you can count on the Secretary-General and I as strong supporters in your endeavours.

I wish you a very productive day.

Thank you.

<http://www.un.org/apps/dsg/dsgstats.asp?nid=125>



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V. Preliminary Findings of the UNU-Cornell Africa Series

A. African Food Systems

By Per Pinstrup-Andersen, Division of Nutritional Sciences, Cornell University

Hunger and malnutrition are widespread in Sub-Saharan Africa and although the MDG1 for hunger alleviation will not be achieved by 2015, significant progress has been made during the last decade.

Life expectancy is low in the Region, while fertility, child mortality, and population growth rates are high. The prevalence of hunger has increased dramatically in the Democratic Republic of Congo (DRC), where about 37 million, or about three-fourths of the population, now suffer from hunger or food insecurity. Tanzania and Madagascar have also experienced a significant increase in the number of hungry people. Great progress has been made in Ghana and Ethiopia towards hunger alleviation while the rest of the countries in the Region have seen very little change in the number of people suffering from hunger or food insecurity. Sixteen African countries are on track to achieve the MDG for hunger alleviation. Recent increases in the economic growth rates of several countries in the Region offer hopes for improvements in human wellbeing including reduced poverty, better nutrition, and less hunger. Although the Region as a whole is not on track to achieve the MDG1, a renewed emphasis on hunger alleviation could accomplish this goal for most of the countries of Sub-Saharan Africa.

While much is known about the African food systems and African health and nutrition, *the understanding of the interaction between food systems and health and nutrition is very deficient* and the potential health gains from changes in the food system are frequently overlooked in policy design and implementation. To help gain better action-oriented understanding of the interaction between the food system and human health and nutrition, a symposium was organized by the United Nations University and Cornell University to explore how public policy and research aimed at the food system and its interaction with human health and nutrition can improve the well-being of Africans and help achieve the MDGs. The Symposium recognized the complexity and multidisciplinary nature of the problem and its solutions. The Symposium enhanced the knowledge about African development in general and the interaction between food systems and health and nutrition in particular and is expected to be useful in national and international efforts to achieve the MDGs.

Six of the MDGs focus on health-related challenges where progress has been slow: hunger alleviation, maternal, infant and child mortality, the control of HIV/AIDS, tuberculosis, and malaria, as well as the provision of safe water and improved sanitation.



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These challenges are intensified by problems of gender inequity, lack of basic infrastructure and environmental degradation, all of which have direct and indirect detrimental effects on health and agricultural productivity.

The burden of disease and that of malnutrition, each reinforcing the other, conspire continually to weaken African populations and are at the core of SSA's perennial dilemma of vicious poverty and underdevelopment. Therefore, disease control measures need to be instituted in parallel with appropriate nutritional interventions.

For example, malaria exacerbates anemia in a population already ravaged by iron and folate deficiencies. Intestinal worm infestations contribute to iron, nutrient and micronutrient losses, either directly or by induction of nutrient deficiency-related anorexia and malabsorption. Diarrheal diseases caused by rotavirus or those of bacterial origin, such as shigellosis and salmonellosis, are associated with malabsorption of amino acids, sugars and lipids as well as losses of zinc, iron and vitamin A. The deficiency of vitamin A worsens lesions in the digestive tract thus exacerbating malabsorption.

As the multi-faceted impact of the AIDS hyper-epidemics across southern Africa continues to intensify, we are witnessing the development of dangerous new interactions that threaten the trajectory of national social and economic development in the region. Recognition of the complex, long-wave aspects of the AIDS crisis has been slow to dawn. Implementation of "HIV-responsive" approaches to ensuring food and nutrition security – at a scale that matches the epidemic -- remains limited. Progress towards the Millennium Development Goals on hunger and on HIV are likely to track each other in this region – mirroring the vicious cycles that play out at many levels between food insecurity, malnutrition, HIV and AIDS.

In the African context, crop pests affect human health through multiple pathways. "Pests" include the diverse mammals, birds, insects, weeds, mollusks and microbes that compete with humans for utilization of agricultural products. Available crop loss estimates are impressive, suggesting that biotic stresses significantly reduce food security for African smallholders. Reduced food supplies contribute to malnutrition, and reduced incomes lead to inadequate access to purchased food and medical care. In addition to reducing crop yields, pests can reduce food quality and safety. The use of pesticides has direct health implications as well. Pest complexes and related health challenges vary among production systems. Traditional cropping systems are oriented to the production of diverse crops without favoring massive pest outbreaks. Increasing population pressure can lead to system degradation, input-intensive production and/or agroecological intensification. The parasitic weed *Striga* is a severe problem on crops grown on degraded soils. Crop intensification can lead to pest outbreaks, provoking the heavy use of pesticides. This can lead to the loss of natural biological control mechanisms, causing further losses, as well as toxicity to humans. Mycotoxins such as aflatoxin are a huge health burden in Africa, particularly to populations that depend on cereal/legume cropping systems that are subject to drought stress. Agroecological intensification implies increasing and diversifying crop production through methods that improve soil and crop health. Improving



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farmers' access to well-adapted, pest-resistant crop varieties and facilitating their agroecological intensification will have positive effects on human as well as ecosystem health.

Productivity of workers is directly influenced by their health and nutritional well-being. One reason for according the relationship between health and productivity special attention is that poor health and nutrition will not only limit worker productivity and earning power, but will also contribute to poverty traps – that is, a cycle of poverty and poor health across generations. While the relationship between health, nutrition and productivity is of general interest, it is nowhere more pressing than in the case of Africa, and more specifically, in rural areas where agriculture dominates as a source of income and employment. There are several reasons for this. First, the productivity effects of health and nutrition problems will be greatest in populations with more serious health problems. Not only are health indicators worse in Africa than in the rest of the world, but rural areas are far worse off than urban areas. Second, the productivity consequences of poor health are greater in areas where hard physical labor is the critical input. Again, this characterizes rural Africa where there is virtually no formal wage labor, and most work is directly or indirectly related to agriculture and is reliant on strength and stamina. This link between health and productivity is particularly important with regard to women in rural Africa and reflects women's predominant role in the production of food crops in Africa. Additionally, women have specific vulnerabilities related to reproductive health and their roles in home production.

Developing agencies emphasize women's empowerment as the fundamental gateway to food security, better nutrition and health in Africa. However, evidence points to sporadic and interspersed progress in these areas. It is time to rethink our strategy. The question to ask is why is it not working? What or who will catalyze the realization of our goals at household level? Is it the poorest of the poor? Is it the researchers? Does the answer lie in female extension agents or in more money? Who will turn agriculture around? Using the same agents for change will not get us the desired results. Africa has changed. The world has changed. Using poverty as the starting point with low expectations is bad motivation for a people who are almost addicted to getting. The new paradigm must talk to wealth creation in all areas of human potential. Chaining a woman to food production in the traditional sense is another form of stereotyping which will continue to keep the African woman and Africa hungry. The policies, plans and methodologies of today must mirror the aspirations and needs of the 'woman' who will benefit from them.

Africa's leaders' determination to make agriculture the engine for their nations' economic development is being realized through continental level prioritization and coordination in ways that were not possible even a few years ago. The Comprehensive Africa Agriculture Development Programme (CAADP) has set out the priorities for action.

Agriculture is a key instrument to achieve the first Millennium Development Goal (MDG1) to eradicate extreme poverty and hunger through increased food availability and access and greater income. Agriculture is also linked – indirectly or directly – to all other goals, and in particular to the maternal and child health, nutrition and survival, and HIV/AIDS and other illnesses goals (MDGs 4, 5 6). Achieving these goals, in turn, is also essential to boost agriculture performance and productivity and to eradicate poverty. The MDG concept -- while

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clear on goals -- is unclear on linking goals to instruments, to synergies between goals and requires inclusion of attention to context and policy and governance. Specifically, there are important elements that could foster true inter-sectoral collaboration between agriculture and health in alleviating poverty; yet, the framework is missing for linking agriculture and health and a set of instruments to effectively exploit the synergies between agriculture and health and achieve joint policy formulation. Research gaps and recommendations on how the MDG framework could be used more effectively to enhance synergies between agriculture and health were identified by the recent Symposium, and actions for institutional arrangements to foster synergies between health and agriculture were proposed that could help overcome the above mentioned deficiencies.

African leaders have collectively identified agriculture, food and nutrition security as a key area that requires their full attention. A special African Union summit was devoted to this subject in early December 2006, and specific decisions and resolutions were agreed upon for implementation around five thematic areas, namely:

- Expanding markets to promote inter African trade in staple foods;
- Mobilization of resources to implement food and nutrition security intervention;
- Integrating nutrition considerations into agriculture and food security interventions;
- Identifying African successes and support sharing of ideas with view to up-scaling;
- Establishing a system of prioritizing key AU and NePAD commitments.

Progress in these five thematic areas will contribute to the achievement of the Millennium Development Goals particularly if the required action pays attention to the interaction between the food system and human health for the purpose of reducing poverty, hunger and malnutrition while improving human health. The UNU/Cornell Symposium was an attempt to generate the knowledge needed to guide policy action towards achieving poverty, hunger and health goals simultaneously. Work is continuing to further strengthen the knowledge base through research and dissemination of the results.



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B. The Social and Economic Dimensions of HIV/AIDS in Africa

By David E. Sahn, Division of Nutritional Sciences and Department of Economics, Cornell University

Globally, 33 million people suffer from HIV/AIDS, and more than two-thirds of the affected live in sub-Saharan Africa. This estimate includes some 1.7 million who were newly infected last year. Of particular concern are the demographic and geographic characteristics of those infected, as the pandemic is in fact heavily concentrated among certain groups living in certain areas. For example, the infection rate in Africa varies widely in different regions, as

attested to by the fact that in eight African countries alone, the number of HIV/AIDS cases exceeded 15 percent of their populations in 2005. Women represent 60 percent of those who are infected. And nearly half those afflicted are young people between 15 and 25 years of age, implying large consequent economic and social impacts, both measured in terms of the social dislocations, such as the huge numbers of orphaned children, and lost productivity and human capital as young men and women are stricken in their most productive years.

While there is widespread agreement that HIV is producing devastating consequences, the magnitude and scope of these effects are only beginning to be fully understood and addressed. Likewise, finding the most cost-effective measures to prevent the disease and mitigate its consequences is still the source of considerable debate. This is especially true in the new era where anti-retroviral (ARV) therapies are being increasingly made available with dramatic effects in terms of extending life of those who have AIDS. But at the same time, new worries are emerging with the roll-out of these pharmaceuticals, especially in the context of the efficacy of preventions strategies and the implications of such treatment initiatives on the provision of other basic health care services, as well as with the prospect that the availability of treatments will increase the likelihood that some people will engage in risky sexual behavior, possibly increasing the spread of the disease.

It is in this context that we convened the recent UNU/Cornell University Symposium on the Social and Economic Dimensions of HIV/AIDS in Africa. The meeting was designed to examine the complex linkages of poverty, reproductive/sexual health and behavior, and HIV/AIDS in Africa. More specifically, the meeting first examined what have we have learned to date about these links and what the gaps are in knowledge to be addressed by further research. Second, the conference addressed what is known about the effectiveness of interventions and policies in Africa for HIV prevention, with a focus on understanding sexual and reproductive health-related behaviors. Third, the symposium explored the scope and experiences to date in terms of the roll-out of anti-retroviral therapies, with an emphasis on the institutional issues of service delivery and the broad spectrum of behavioral responses among vulnerable groups, their children, and their communities.

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Fourth, the symposium addressed the economic and social costs of HIV/AIDS, both in terms of the short-term consequences for household incomes and livelihoods, and the long term implications as mediated through investment decisions in children, household enterprises, and asset accumulation. And finally, we explored the issue of what are the appropriate methodological approaches to conducting research on these questions, including an assessment of the approaches described in the literature that deal with problems associated with evaluation, causation, and related issues such as self-selection and non-randomness in the placement of HIV-related health policies and programs. Data requirements for different research questions were also highlighted.

With regard to the microeconomic implications of the HIV/AIDS epidemic for households in Africa, there are a range of effects on incomes and livelihoods. For example, early evidence from western Kenya shows a range of socio-economic benefits realized by households of patients who receive ARV therapy. These benefits begin with the impact of treatment on the productivity of treated patients, who are able to significantly increase their work hours within six months after they initiate treatment. Additionally, the restoration of the HIV-infected patients' health and productivity due to ARV therapy has strong implications for the welfare of children living with the treated patients. A longer life expectancy of individuals receiving treatment may also lead them to undertake greater investments in their children's health and education with related reductions in the incidence of child labor, both market and non-market activities, and significant improvements in children's nutritional status and school attendance. Despite some early evidence in this regard, there is surprisingly limited empirical evidence on microeconomic impacts of HIV/AIDS on livelihoods and investment, as well as for related concerns such as the within-household allocation of labor and the employment choices of affected household members. In order to close the knowledge gap on this topic, the meeting highlighted the need for additional research based on longitudinal data collection at the population level and at health facilities.

At the macroeconomic level, econometric evidence is consistent with a moderate slowdown in economic growth in countries with high rates of HIV prevalence, but the evidence is inconclusive overall. Moreover, there is little evidence of adverse macroeconomic effects in countries with moderate or low HIV prevalence. Alternative methods to assessing the macroeconomic consequences of HIV/AIDS involve calibrating a macroeconomic model and incorporating parameters based on sectoral or microeconomic data on HIV/AIDS, such as health expenditures or productivity losses associated with disruptions to economic activities caused by increasing mortality or morbidity. Most studies following this approach show a moderate decline in GDP growth as a consequence of HIV/AIDS. Over the long-term, however, the main concern that emerges is the potentially significant impacts of HIV/AIDS on economic growth as a result of the depletion of an economy's human capital, arising from increased mortality among working-age adults and rising numbers of orphans.

One factor that mitigates the adverse impacts of HIV/AIDS in many countries is the role of natural resources. High rents from resource extraction mean that the role of labor in value added is limited in the sector, and companies can find ways to work around disruptions caused

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by increased mortality and morbidity. Additionally, there is evidence that inequality matters, such as in high prevalence countries in southern Africa which tend to be characterized by high rates of income inequality and a formal sector with relatively high levels of income that coexists with an informal and low-income economy sustaining a large proportion of the population. Evidence from the formal sector suggests that the impacts of HIV/AIDS in this sector are small. Large companies generally do not consider HIV/AIDS as a principal threat to their businesses, and are able to mitigate the impacts through prevention and treatment programs. Additionally, where HIV/AIDS does affect profitability, there is scope for “burden-shifting,” e.g., by passing the costs of treatment to the public sector or limiting the scope of medical benefits. On the other hand, the impact of HIV/AIDS is more pronounced for individuals and households that largely rely on physical labor for income and cannot cope with catastrophic health events. However, these households carry a low weight in aggregate indicators like GDP. Evidence of increasing food insecurity (in the informal sector) is therefore consistent with studies finding a modest impact of HIV/AIDS on GDP.

Looking beyond the impact of HIV/AIDS we need to address the more contentious and intertwined issues of prevention and treatment. With regard to prevention, three domains can be identified. First is the biomedical, including microbicides, male circumcision, and cofactor STI treatment. While these issues were only discussed briefly during the symposium, the results of efforts to treat cofactors and topical microbicides have generally been disappointing to date, although there appears to be considerable promise for the preventative effects of male circumcision.

Of more central concern to the symposium’s discussion, was the evidence, or lack thereof, regarding efforts to change behavior and promote individual risk reduction through greater use of condoms, partner reduction and delayed sexual debut, as well as the related structural policies aimed at changing the context that condition risk behaviors, including norms, gender relations, social and influence networks, and so forth. Overall, efforts in these areas have shown limited and uncertain benefits. For example, voluntary counseling and testing (VCT) studies in Africa provide some evidence that HIV positive testing will encourage discordant couples to adopt protective behavior (condoms), but this does not apply to HIV negative testers. Thus, it does not appear that VCT is an effective intervention for promoting behavior change in population, despite being an important gateway to treatment with anti-retroviral drugs.

The use of condoms as a prevention strategy, again has met with very qualified success. For example, promoting condom use is especially useful in concentrated epidemics that target sex workers and the military. There is also evidence that more generally the supply and acceptability/utilization have risen. But problems of inconsistency in use and difficulty of use in committed partnerships have limited the success of such strategies. In this regard, special concerns have been focused on the efficacy of youth and school-based HIV education to not only promote condom use, but also delayed sexual debut.

Evaluations in Africa suggest improvements in knowledge and attitudes, although, there is far less evidence of change in self-reported risk behavior, or in biological endpoints such as



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pregnancy and HIV infection. Obviously, these programs are necessary to provide knowledge of the disease and risks, but the programs themselves may have little direct impact on behavior.

While standard individual behavior change interventions are informed by cognitive behavioralist models of change which seek to inform people of risks with the expectation that they will alter behavior, structural models and interventions aim to address the social context of sexual behavior. Structural factors operate at varying levels, including the economic and legal environment, patterns of migration and urbanization, gender relations and inequality, the nature of social networks, peers groups and vulnerability, as well as the role of influential individuals, community leaders, and political leadership. Evaluating and understanding the links from policies and programs that affect these structural considerations to HIV outcomes is clearly challenging. Furthermore, the effects of structural change are difficult to distinguish from effects from other national policies and trends and the dynamic interactions of interventions, in addition to being highly context –specific.

This being said, emerging evidence shows that a more fundamental problem than the challenges of evaluating the effectiveness of structural interventions is that such policies are often based on false premises and assumptions, rather than a clear understanding of the socio-cultural context. For example, recent research has shown that there are substantial discrepancies between the conventional wisdom about gender and social norms that circulates among international and national actors and the conventional wisdom that circulates in rural social networks. One illuminating example is from the intensive research undertaken in Malawi which challenges pre-conceptions such as that women are powerless to demand that condoms are used during sex and resist their husbands' demands for sex, or that extra-marital relations are purely driven by the demands of men. Such misconceptions about gender and social norms upon which programs for HIV prevention and treatment are based are likely to have inhibited the effectiveness of these programs in the region.

Perhaps one of the most important emerging issues in the quest to promote behavioral change is the roll-out of anti-retroviral therapies. The ability of such treatments to extend life and improve the quality of life is indeed remarkable. However, experience in wealthy countries suggests that universal access to anti-retroviral treatment (ART) erodes condom use in non-commercial sex communities and networks where prevalence is high and more generally encourages compensating risk behaviors. Thus, there is a growing concern that more treatment will contribute to more HIV infections.

At the same time, there is real concern that treatment options, and more specifically universal access to ART is not sustainable, at least without a dramatic increase in successful prevention strategies. That is, the success that is being observed in terms of the roll-out of ARVs contains the seeds of a future crisis. Life-long treatment costs are increasing, as those on treatment live longer, and the number of new HIV infections continues to outpace the number of people receiving treatment.



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Escalating treatment costs coupled with neglected prevention measures threaten to squeeze out spending on other global health needs. At the national level, the concern is that the predominant attention given to HIV/AIDS control and treatment programs is leading to distortions in spending priorities and undermining domestic stewardship of the health sector. This is especially problematic when HIV aid bypasses country planning and budgeting mechanisms.

Similarly, at the international level, projections suggest that half of the entire U.S. foreign assistance budget will be allocated to ARVs by 2016. Indeed, opportunities such as promoting indigenous pharmaceutical technology and infrastructure that is not in violation of international trade and patent agreements may reduce the resource costs of ART. However, there are formidable obstacles to overcoming the pressure by global pharmaceutical firms, as well as the absence of domestic know-how and capabilities that stand in the way of such initiatives. But at the end of the day, the politically compelling nature of treatment programs, including their easy-

to-measure and visibly dramatic benefits, as well as their popularity with global pharmaceutical giants and even health personnel at clinics, suggests a need to strongly admonish the unsustainable nature of such programs in the absence of similar successes in the area of prevention.

Finally, the symposium highlighted the need to place the fight against HIV/AIDS in the broader context of the causes of mortality and morbidity in developing countries. For every one person who dies from HIV, five die before they become five years old from easily preventable and treatable causes. Currently HIV receives far more funding than would appear to be justified by the deaths it causes and the cost effectiveness of its interventions. HIV causes 3.7% of death globally but receives 25% of health aid. The way in which most HIV aid is delivered may also be doing positive harm to health systems in many countries. Redirecting additional aid to build functioning health systems and addressing other diseases that contribute to high morbidity and mortality, human suffering, and lost economic productivity thus needs to be considered concurrent with efforts to address the causes and consequences of HIV/AIDS.



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David Sahn, International Professor of Economics; Director of Cornell Food and Nutrition Policy Program

12:20 – 12:40pm The interaction between HIV/AIDS and the food system in Sub-Saharan Africa
Stuart Gillespie, Senior Research Fellow, International Food Policy Research Institute

12:40 – 1:00pm Discussion

1:00 – 2:00pm Lunch

Moderator: Jean-Marc Coicaud
2:00 – 2:20pm Fighting animal and zoonotic diseases Sub-Saharan Africa to improve the food system and human health
Alfonso Torres, Associate Dean of Public Policy, College of Veterinary Medicine, Cornell University

2:20 – 2:40pm Pest management, farmer incomes and health risks in Sub-Saharan Africa: Pesticides, host plant resistance and other measures (Rebecca Nelson)
Rebecca Nelson, Associate Professor, Plant Pathology, Cornell University

2:40 – 3:00pm Discussion

3:00 – 3:20pm Promoting agricultural development in Sub-Saharan Africa to achieve the MDGs for poverty, hunger, and health
Monty Jones, Executive Secretary, Forum for Agricultural Research in Africa; co-recipient of the 2004 World Food Prize

3:20 – 3:40pm Prioritizing food system research to achieve nutrition and health goals
Joachim von Braun, Director General, International Food Policy Research Institute (IFPRI)

3:40 – 4:00pm Coffee break

4:00 – 4:50pm Discussion

Moderator: Per Pinstруп-Andersen
4:50 – 5:30pm Panel presentation and discussion: Towards an integrated food and health agenda for the United Nations to achieve the hunger, nutrition and health components of the MDGs
Ian Darnton-Hill, Senior Adviser, Child Survival and Nutrition, UNICEF
Ronald Sibanda, Director, Liaison Office to the Africa Union (AU) and Economic Commission for Africa (ECA), WFP
Werner Obermayer, Deputy to the Executive Director, Office at UN Headquarters in New York, WHO

5:30 – 5:45pm Concluding comments
Per Pinstруп-Andersen, H.E. Babcock Professor of Food, Nutrition and Public Policy, Nutritional Sciences, Cornell University



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VII. Appendix 2 - Agenda - The Governance Dimension of the MDGs in Africa

May 21 2008, The Penthouse of the Dag Hammarskjöld Library, UN Headquarters in New York

9:15 am – 9:20 am Opening

Jean-Marc Coicaud, Director, United Nations University Office at the UN, New York

9:20 am – 9:30 am Keynote speech

Patrick Hayford, Director, Office of the Special Adviser on Africa, United Nations Headquarters

9:30 am – 10:20 am Panel 1: Governance at the Regional and Sub-Regional Levels

Emmanuel Fanta, Project Researcher, United Nations University Programme on Comparative Regional Integration Studies

John-Mary Kauzya, Chief of Governance and Public Administration Branch, United Nations Department of Economic and Social Affairs, Division for Public Administration and Development Management

Moderator: Norbert Wagner, Director of the Washington office, Konrad Adenauer Foundation

10:20 am – 10:30 am Coffee break

10:30 am – 12:10 pm Panel 2: Challenges of Increased Aid to Africa

Shamsuddin Tareq, Deputy Division Chief, International Monetary Fund, Expenditure Policy Division, Fiscal Affairs Department

Zahra Nuru, Director / Senior Advisor to the USG/HR Former High Official of Tanzanian Government, UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS)

Benu Schneider, Chief, International Finance, Debt and Systemic Issues Unit Financing for Development Office UN Department of Economic and Social Affairs

Arthur Goldsmith, Professor, University of Massachusetts at Boston

Moderator: Patrick Hayford, Director, Office of the Special Adviser on Africa, United Nations Headquarters



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12:10 pm – 1:30 pm Lunch break

1:30 pm – 3:00 pm Panel 3: Capacities and the Governance of the African State

Penda Mbow, Professor, Department of History, Université Cheick Anta Diop de Dakar, Sénégal

Mamoudou Gazibo, Associate Professor, Department of Political Science, University of Montreal

Sakiko Fukuda-Parr, Professor of International Affairs, New School University

Russel Botman, Rector and Vice-Chancellor, Stellenbosch University, South Africa

Moderator: Muna Ndulo, Director, Institute for African Development, Cornell University

3:00 pm – 3:10 pm Coffee break

3:10 pm – 3:20 pm Short briefing

3:20 pm – 4:30 pm Panel 4: Public Finance, Accountability and Governance

Abbia Effiong Udofia, Chief Legal Officer, Independent Corrupt Practices and Other Related Offences Commission, Central Area, Abuja, Nigeria

Norbert Mao, Chairman, Gulu District Local Government, Uganda

Moderator: Nic van de Walle, Director, Mario Einaudi Center for International Studies, Cornell University

4:30 pm – 6:00 pm Concluding Panel: The Way Forward

Jean-Marc Coicaud, Director, United Nations University Office in New York

Muna Ndulo, Director, Institute for African Development, Cornell University

Nic van de Walle, Director, Mario Einaudi Center for International Studies, Cornell University

Moderator: Jean-Marc Coicaud, Director, United Nations University Office in New York



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VIII. Appendix 3 – Agenda - The Social and Economic Dimensions of HIV/AIDS in Africa

9 September, 2008, Dag Hammarskjöld Library Auditorium, UN Headquarters, New York

Chair in the morning: Jean-Marc Coicaud, Director, United Nations University Office at the UN in New York (UNU-ONY)

Chair in the afternoon: Patrick Stover, Director, UNU Food and Nutrition Programme (UNU-FNP); Director, Division of Nutritional Sciences, Cornell University

8.30 – 8.40am Welcome and Opening

Jean-Marc Coicaud, Director, UNU Office at the UN in New York

Patrick Stover, Director, UNU Food and Nutrition Programme; Director, Division of Nutritional Sciences, Cornell University

8.40 – 8.55am Keynote Speaker

Asha-Rose Migiro, UN Deputy Secretary-General

8.55 – 9.05am Introductory Comments

David E. Sahn, International Professor of Economics, Cornell University

9.05 – 9.20am Challenges on HIV/AIDS in Africa within the Context of Africa's Development Needs

Emelia Timpo, Senior Adviser, UNAIDS

9.20 – 9.35am Q & A

9.35 – 11.15am Panel 1: The Impact of HIV/AIDS: Micro and Macro Perspectives

Macroeconomic Impacts of HIV/AIDS: Markus Haacker, IMF

Impacts of HIV on Household Incomes and Mitigation Through ARV therapy: Harsha Thirumurthy, University of North Carolina at Chapel Hill

Impact on Children and Youth: Kathleen Beegle, World Bank

11.15 – 12.00pm Time for colleagues who attend video conference from Accra and Addis Ababa: Thoughts on the topics in the afternoon session

12.00 – 13.00pm Lunch Break

13.00 – 13.10pm Keynote Speaker

Serhat Unal, School of Medicine, Hacettepe University

13.10 – 15.20pm Panel 2: Intensifying Prevention and the Role of Local Governments and Communities

Gender, Social Norms, and the Prevention and Treatment of HIV/AIDS in Africa: Susan Watkins

Political and Institutional Failure: Kondwani Chirambo (video presentation)

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Prevention Impacts of HIV/AIDS Interventions in Africa: What Have We Learned?: Peter Glick, Cornell University

Prevention Impacts of HIV/AIDS Interventions in Africa: What Have We Learned from Ghana's Perspective: Richard Amenyah, Technical Director, Ghana AIDS Commission

The Epidemiology of HIV/AIDS in Three countries in Southern Africa: Some Key Findings from Population-based Surveys: Leickness Simbayi, Human Sciences Research Council (HSRC), South Africa

Discussant:

Gilbert Ayebi Manouan, Mayor of Mafère, Cote d'Ivoire, Coordinator of the Alliance of Mayors and Municipal Leaders on HIV/AIDS in Africa

15.20 – 15.30pm Break

15.30 – 17.40pm Panel 3: Support Systems: Access to Treatment and Care

Opportunities and Constraints in the Roll-out of Anti-retro Viral Therapies: Mead Over, Center for Global Development

Access to ARV Treatment: Opportunities and Impediments for South-South Cooperation: Obijiofor Aginam, UNU Peace & Governance Programme

Treating Ourselves to Trouble? The Uncertain Relationship Between Treatment and HIV Prevention in Developing Countries: Elizabeth Pisani, author of *The Wisdom of Whores*

The Role of Food and Nutrition in Treatment Care and Support: Martin Bloem, Chief of Nutrition and HIV/AIDS Policy, WFP

The Fight Against AIDS in the Larger Context: the End of 'AIDS Exceptionalism': Roger England, Health System Workshop

Moderator: Bradley Hersh, Coordinator of the Operational and Technical Support Team of the Department of HIV/AIDS, WHO