

# THE IMPACT OF HIV/AIDS

A POPULATION AND DEVELOPMENT  
PERSPECTIVE

POPULATION AND  
DEVELOPMENT  
STRATEGIES

NUMBER 9





# THE IMPACT OF HIV/AIDS

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PERSPECTIVE

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## FOREWORD

Globally there are about 42 million people living with HIV/AIDS and no major region of the world escapes the pandemic's invasive presence. By far the greatest proportions are concentrated in the developing world. The impact has been particularly devastating in sub-Saharan Africa, but it is also now spreading to the most populous countries, such as China, India and Russia, and no region is spared. In some settings mortality of young children and working-age adults has risen sharply, life expectancy has declined by as much as 15 years for both men and women, and millions of children have been orphaned. Differences in the prevalence of HIV/AIDS by sex vary by age and location, with girls and women often particularly disadvantaged. As mortality increases from HIV/AIDS, population and poverty interactions become increasingly complex.

Epidemics are as much a socio-cultural as a biological phenomenon. The tendency in recent decades to accept the view that the epidemiological transition marks the end of the threat from infectious and contagious diseases has been shaken by the rapid spread of HIV/AIDS, and more recently by the outbreak of the previously unknown Severe Acute Respiratory Syndrome (SARS). Changing family structures together with high levels of human mobility are creating a social and economic environment in which patterns of behaviour are rapidly evolving, demanding more creative approaches to prevention and mitigation of diseases. There is a need, therefore, to establish more comprehensively and precisely the two-way relationship between HIV/AIDS and development.

With these concerns in view, this publication aims to further implement the recommendations of the Programme of Action of the International Conference on Population and Development (ICPD) and ICPD+5 by continuing to create awareness of the population and development impacts of HIV/AIDS, and identify multisectoral strategies to deal with the critical issues that have arisen. The Millennium Development Goals (MDGs) recognise explicitly the necessity for bringing HIV/AIDS under control. It is in this context that HIV/AIDS impact assessments provide an important analytical tool for understanding how communities and societies are affected by, and are responding to, the disease.

Extreme poverty correlates strongly with HIV/AIDS. National poverty reduction strategies offer the potential for contextualising findings relating to HIV/AIDS issues within a development perspective. Mainstreaming responses to HIV/AIDS into the strategies of virtually all sectors at all levels, not just the health sector, is an essential step in both high and low prevalence countries. Such an inclusive strategy enhances the possibility of dealing effectively and simultaneously with the critical issues of both poverty and HIV/AIDS in their many direct and indirect manifestations.

Effective response to the HIV/AIDS pandemic calls for concerted efforts. Under the Global Partnership for Development, as agreed in MDG8, developed countries have committed to the transfer of the necessary resources to ensure fulfilment of the other development goals. This contribution can take many forms, including increases in official development assistance (ODA), debt relief, and reductions in trade tariffs and agricultural subsidies. Specifically in the context of HIV/AIDS and its multi-dimensional impacts on development, the types of resources that are especially appropriate include making available affordable and essential pharmaceuticals and new technologies in areas such as information and communications. Implementation of such measures gives substance to the determination to create an environment conducive to development and the elimination of disease and poverty.

On behalf of UNFPA, I would like to take this opportunity to thank the many people who contributed to this report, particularly Dr. Suman Mehta and colleagues of the HIV/AIDS Branch of the Technical Support Division and the UNFPA Inter-Divisional Working Group on HIV/AIDS which includes members from the Country Technical Services Teams

(CSTs) and UNFPA Country Offices. I would especially like to commend those who prepared this report (page vi) for their hard work and commitment. I sincerely hope that it makes a significant contribution to identifying and assessing the impacts of HIV/AIDS and to the formulation of strategies and programmes for relieving their damaging effects. The ability of communities, nation states and the international community to control the spread of HIV/AIDS depends critically on a clear understanding of its social and economic drivers.

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**Acronyms**

<b>AIDA</b>	Accessible Information on Development Activities
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AIM</b>	AIDS Impact Model
<b>AIM-B</b>	AIDS Impact Model for Business
<b>DFID</b>	Department for International Development
<b>DHS</b>	Demographic and Health Survey
<b>EPP</b>	Epidemic Projection Package
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FEWS</b>	Famine Early Warning System Network
<b>FHI</b>	Family Health International
<b>GDI</b>	Gender Development Index
<b>GDP</b>	Gross Domestic Product
<b>GNP</b>	Gross National Product
<b>GTZ</b>	German Technical Cooperation
<b>H/H</b>	Household
<b>HDI</b>	Human Development Index
<b>HDR</b>	Human Development Report
<b>HEARD</b>	Health Economics and HIV/AIDS Research Division
<b>HIPC</b>	Heavily Indebted Poor Country
<b>HIV</b>	human immunodeficiency virus
<b>HPI</b>	Human Poverty Index
<b>IDU</b>	Injecting Drug Users
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFPRI</b>	International Food Policy Research Institute
<b>ILO</b>	International Labour Organization
<b>IOM</b>	International Organization for Migration
<b>IPPF</b>	International Planned Parenthood Federation
<b>IPSR</b>	Institute for Population and Social Research

<b>KIT</b>	Koninklijk Instituut voor de Tropen (Royal Tropical Institute)
<b>MAP</b>	Monitoring the AIDS Pandemic
<b>MDG</b>	Millennium Development Goal
<b>NGO</b>	Non-Governmental Organization
<b>NORAD</b>	Norwegian Agency for Development Cooperation
<b>ODK</b>	Operational Division Kampala (of the World Food Programme)
<b>ODN</b>	Overseas Development Network
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>PHC</b>	Primary Health Care
<b>PLWA</b>	People Living with AIDS
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>SAfAIDS</b>	Southern Africa AIDS Information Dissemination Service
<b>SAP</b>	Structural Adjustment Programme
<b>SIDA</b>	Swedish International Development Cooperation Agency
<b>SIPRI</b>	Stockholm International Peace Research Institute
<b>STD</b>	Sexually Transmitted Disease
<b>STI</b>	Sexually Transmitted Infection
<b>TB</b>	Tuberculosis
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>UNDP</b>	United Nations Development Programme
<b>UNGASS</b>	United Nations General Assembly Special Session
<b>UNICEF</b>	United Nations Children's Fund
<b>UNRISD</b>	United Nations Research Institute for Social Development
<b>USAID</b>	United States Agency for International Development
<b>VCCI</b>	Viet Nam Chamber of Commerce and Industry
<b>WHO</b>	World Health Organization

## Definitions

In common usage the terms *incidence* and *prevalence* have similar meanings and are often used synonymously; that is the case in this volume for phenomena other than disease. However, epidemiologically the terms have a more precise and distinct connotation and where they are used in the text to refer to HIV/AIDS this more technical use of the terms applies, as follows:

***incidence*** the *rate* at which new cases occur in a population in a specified period (e.g., a calendar year)

***prevalence*** the *proportion* of a population identified as cases at a particular point in time

Similarly, in common usage the terms ***epidemic*** and ***pandemic*** are used to refer to the widespread outbreak of a disease. However, although there is no clear-cut point at which the use of one term is automatically replaced by use of the other, the main distinction is in the difference in geographical scale, and that convention is adopted in the text as follows:

***epidemics*** occur when an infectious disease spreads progressively through and beyond a local population, persists over a lengthy period and reaches people throughout a country or wider region

***pandemics*** are deemed to occur when such a disease expands even more widely, often through the occurrence of a series of epidemics across regions and continents, eventually reaching worldwide proportions





## EXECUTIVE SUMMARY

The HIV/AIDS pandemic continues to expand across the world at a rapid rate. The ability of communities, nation states and the international community to reverse or even control the spread of HIV/AIDS depends heavily upon understanding the social, cultural and economic factors driving the disease and its impact on all levels and sectors of society.

The scale of the HIV/AIDS pandemic is immense. **Chapter One** outlines the dimensions of the pandemic and the worldwide challenge this represents. No major region of the world escapes its invasive presence and all are being called upon to meet the challenge explicitly enunciated within the Millennium Development Goals of halting and reversing the spread of HIV/AIDS. The HIV/AIDS pandemic has the potential, if not brought under control, to reverse development gains, including progress towards the international development goals.

Epidemics are as much socio-cultural as biological phenomena. While the focus is on the impact of HIV/AIDS on major elements of the economy and society, there is an equally significant role being played by the development process. HIV/AIDS impact assessments are important analytical tools for understanding how households, communities and societies are affected by and responding to the disease. They provide information that can be used for advocacy and planning for both prevention and mitigation of HIV/AIDS. **Chapter Two** argues that, if a real understanding is to be achieved, the information generated by an impact

assessment needs to be viewed in the development context in which HIV/AIDS epidemics are occurring.

**Chapter Three** focuses on the forceful impact that HIV/AIDS generally has on specific development-related factors across the spectrum: demographic, economic and social. The examples illustrate how families, communities, businesses and governments are disinvesting in productive activities as people fall sick and others die and as resources are shifted to care and treatment of people living with HIV/AIDS. Children are withdrawn from school and put to work to compensate for the lost labour and income of their households. Families, businesses and government departments are losing the human and social capital that has been carefully built up over decades, and in most instances the seriousness of the situation is often not recognized let alone ameliorated in any effective way.

An impact assessment requires specific and precise measures of the parameters to be addressed and **Chapter Four** provides information on some of the tools and resources available to do this. In particular, impact indicators and markers are identified that are suitable for designing an assessment that will yield findings about the nature and scale of impact of HIV/AIDS on one or more components of population and development. The chapter focuses on a set of key variables, markers and other characteristics that can be used to describe the main facets of important issues and elaborates on how to make the best use of them in designing an impact assessment within a development context.

Within the context of development, HIV/AIDS impact assessments can be a powerful tool in advocacy and can help bridge sectoral boundaries that too often inhibit effective prevention strategies or responses. **Chapter Five** reviews some past experiences with impact assessments in order to make future ones more effective. One area of particular significance is that of poverty – a characteristic that correlates strongly in many populations with HIV/AIDS. National poverty reduction strategies, that frequently evolve from Poverty Reduction Strategy Papers (PRSPs), can serve as a powerful mechanism for addressing the linkages between HIV/AIDS, poverty and related elements, including human rights, gender and socio-cultural issues. National poverty reduction strategies must therefore address the multi-dimensional impact of HIV/AIDS across all sectors.

**Chapter Six** is addressed more particularly to those with responsibility for determining whether an HIV/AIDS development impact assessment is needed and could be advantageous. Underlying the technical dimensions of designing an impact assessment and analysing the results, there are always socio-cultural and political factors that are likely to constrain the eventual application of findings to the resolution of issues. Although these may be frustrating to those who have worked to strengthen prevention, care and mitigation efforts, working for change and improvements is bound to encounter a degree of resistance.

This publication also offers a substantial set of resources in the form of major websites dealing with HIV/AIDS and development; an annotated bibliography of many of the most useful recommended sources for understanding HIV/AIDS within a development context and for shaping HIV/AIDS impact assessments; and an extensive bibliography that goes beyond the references referred to throughout the text.



**Scope of Study**

Attempts to identify and understand the full impact of HIV/AIDS are still far from complete. This study attempts to provide a comprehensive view of some of the more *direct* outcomes of the issues and linkages between HIV/AIDS, population and development, and to discuss approaches for assessing and evaluating them. There is still, however, only limited appreciation of the *indirect* repercussions of HIV/AIDS-population-development interactions, including socio-cultural factors and consequently other important questions, beyond the scope of this study, remain to be delineated and addressed.

There are a number of powerful tools available that have the capacity to help investigators come to grips with the realities of HIV/AIDS within a population and development context. Foremost among these is the impact assessment approach aimed at establishing the fundamental parameters of the epidemic and its significance for on-going social and economic development. The impact assessment is a versatile tool that can provide information applicable to a wide range of needs including advocacy, planning, prevention and mitigation.

The impact of HIV/AIDS in many societies, especially where prevalence is high, has been conspicuous. It has marked effects on population dynamics, including decreasing life expectancy, the slowing of economic growth, increasing extreme poverty and a multiplicity of other factors that compromise development. This study systematically addresses these themes, elaborating on the nature of the impacts, suggesting approaches to impact assessment and ways in which impact assessments can be utilised for programme design and advocacy.

### Progressive Impact of the HIV/AIDS Pandemic

The insidious nature of the epidemic commonly means that its scale and impact remain undetected during the initial phase when recorded incidence and prevalence are both low. In societies where preventative measures are not taken early, trauma, illness and death become increasingly characteristic features that rapidly have an impact on human and economic development. The progressive deterioration in more affected countries tends to follow a pattern that relates closely to the living conditions and life styles of the people concerned so that issues deriving from poverty and deprivation feedback into the system accentuating

**FIGURE 1.1:** The Waves of Impact of the HIV/AIDS Epidemic

EPICENTRE	WAVE 1	WAVE 2	WAVE 3	WAVE 4
SPREAD OF THE VIRUS	TRAUMA, ILLNESS AND DEATH	SURVIVORS	SOCIAL AND ECONOMIC IMPACT	LONG-TERM POTENTIAL IMPACT
<i>description</i>				
Spread hidden, but increasing numbers of persons becoming infected.	Psychological trauma; HIV opportunistic diseases appear; increasing illness and death.	Grieving and bereavement, children, elderly and others left without support.	Depletion of the labour force, adverse impact on productive and social sectors, shrinking revenues, loss of military strength.	Possibility of social and political unrest, destitution, social and economic disintegration.
<i>determining factors</i>				
<ul style="list-style-type: none"> <li>• Inequalities of:                             <ul style="list-style-type: none"> <li>- Wealth</li> <li>- Power</li> <li>- Autonomy</li> </ul> </li> <li>• Sexual norms and community values</li> <li>• Attitudes toward women</li> <li>• Mobility</li> <li>• Ethical/legal environment</li> </ul>	<ul style="list-style-type: none"> <li>• Extent of spread</li> <li>• Attitudes toward the affected</li> <li>• Ethical/legal environment</li> </ul>	<ul style="list-style-type: none"> <li>• Clustering of infections in households and communities</li> <li>• Dependency ratios</li> <li>• Attitudes toward survivors</li> <li>• Ethical/legal environment</li> </ul>	<ul style="list-style-type: none"> <li>• Morbidity in productive adults</li> <li>• Clustering in occupations and geographically</li> <li>• Gender role differentiation</li> <li>• Structure of labour market and economy</li> </ul>	<ul style="list-style-type: none"> <li>• Effectiveness and type of earlier policies and programmes</li> <li>• Clustering in occupations and geographical areas</li> <li>• Dependency ratios</li> </ul>

**SOURCE:** Adapted from UNDP (2000b).

the impact of the disease. This sequence can be conceived of as a series of waves that cumulatively becomes more and more damaging to individuals, households, communities and whole societies (Figure 1.1).

### Dimensions of the Pandemic

The HIV/AIDS pandemic has become an escalating worldwide phenomenon (Figure 1.2). In the year 2000 alone, 5 million children and adults became infected, and by 2002 an estimated 42 million people were living with HIV/AIDS.<sup>1,2</sup> An additional 13,700 adults and children are becoming infected each day and by 2010 it is anticipated that a further 45 million will have become infected.

Although the pandemic has become virtually global, there is an overwhelming concentration of more than 95 percent of people living with HIV/AIDS in the developing world. The situation is most acute in sub-Saharan Africa where the impact on populations and economies has been most devastating, but the prevalence of HIV/AIDS is increasing in the large populations of China, India, Russia and other countries not previously associated with a significant escalation in the pandemic.

The direct impact of HIV/AIDS on populations has many dimensions, many of which will be explored below in later chapters. Among the most notable have been the estimated total number of deaths attributed to HIV/AIDS. By the end of 2001 these amounted to 20 million, with a further 3.1 million deaths in 2002 alone. One of the more severe social consequences of these high levels of mortality is the impact on the family: worldwide, by the end of 2001, some 14 million children are estimated to have been orphaned by HIV/AIDS.

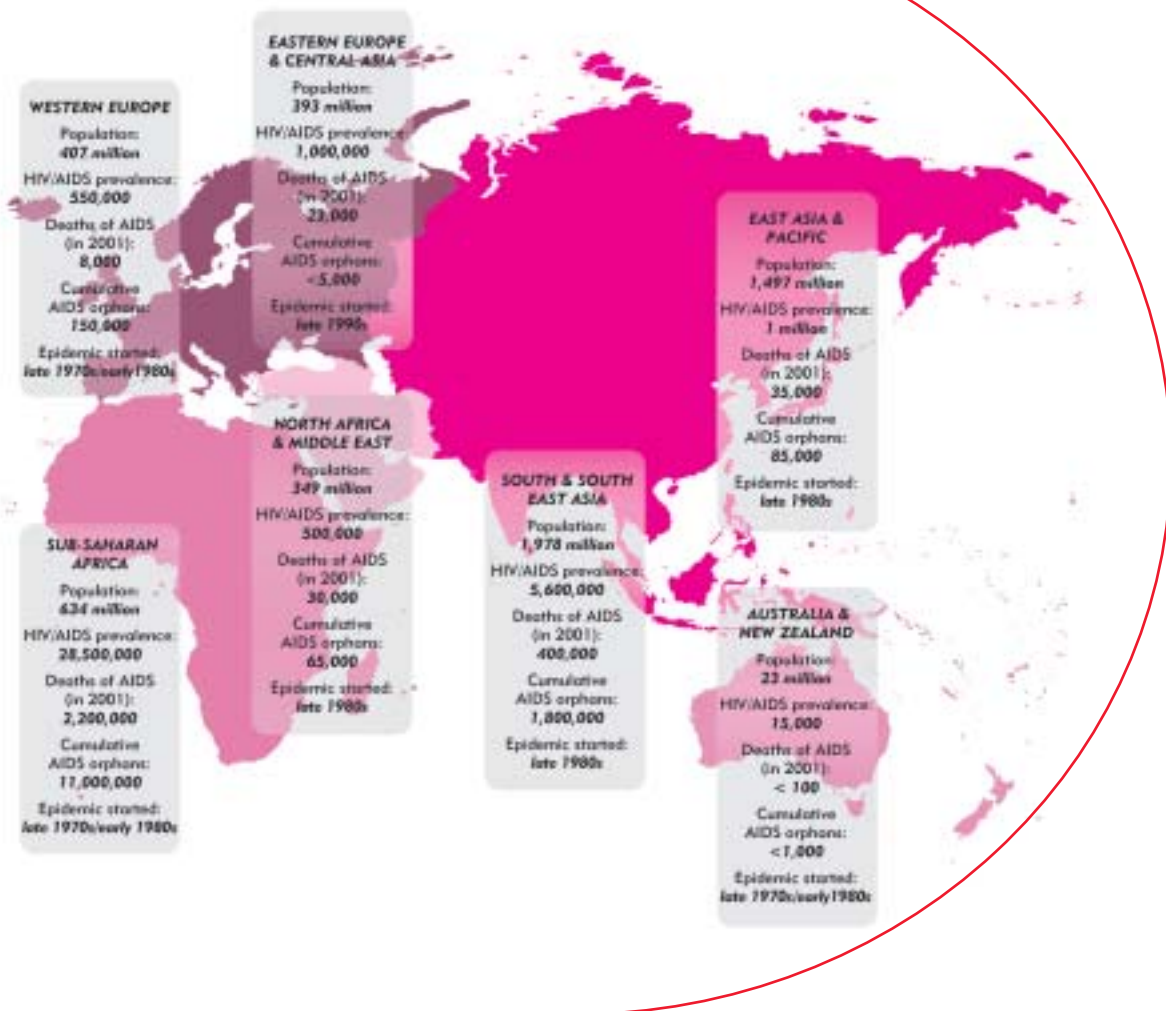
<sup>1</sup> Because of measurement problems, figures on HIV/AIDS need to be considered as orders of magnitude rather than precise estimates, and trends over time may not be fully comparable.

<sup>2</sup> Source of data of figures in this chapter: UNAIDS (2002).

FIGURE 1.2: Overview of the HIV/AIDS Pandemic at the End of 2001





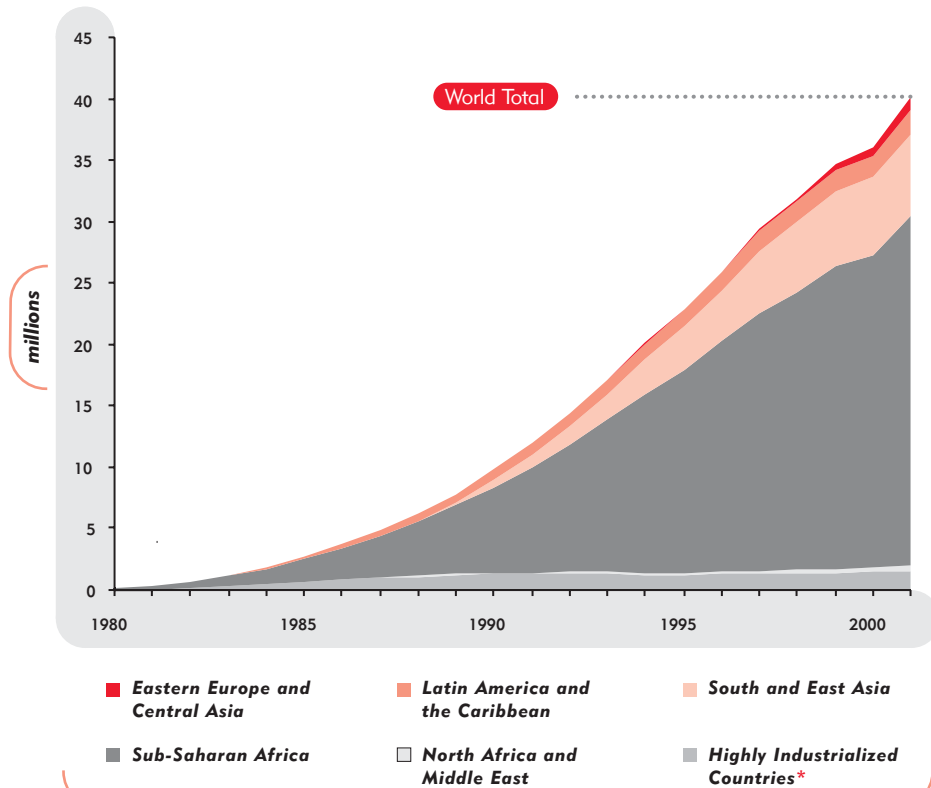


SOURCE OF DATA: UNAIDS (2002).

### Prevalence by gender

Fifty percent of those living with HIV/AIDS are women. In sub-Saharan Africa, about twice as many young women as men are reported to be HIV-positive. An estimated 6 to 11 percent of young women aged 15-24 are living with HIV/AIDS, compared to 3 to 6 percent of young men. The ratio of men to women living with HIV/AIDS in Latin America is 3:1, and in the Caribbean 2:1. In the United States, in the period June 2000 to June 2001, 56 percent of those identified as infected were females aged 13-19, with a disproportionately large number African-American.

**FIGURE 1.3:** People with HIV/AIDS by region (millions), 1980-2001



\* North America, Europe (except eastern Europe), Japan, Australia, and New Zealand

SOURCE: UNAIDS (2002), and unpublished data.

## Prevalence by region

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**Sub-Saharan Africa** is by far the worst affected region and has 28.5 million people living with HIV/AIDS (**Figure 1.3**). Three million children under the age of 15 are infected with HIV/AIDS. Botswana has the highest prevalence rate: 38.8 percent. Prevalence has reached 20.1 percent in South Africa, and 33.7 percent in Zimbabwe. In sub-Saharan Africa, the main mode of transmission is heterosexual sex.

**South and East Asia and the Pacific:** by the end of 2001, 6.6 million people were living with HIV/AIDS, a figure second only to sub-Saharan Africa. This includes 1 million adults and children newly infected in the same year.

Both China and India have relatively low prevalences, but the absolute numbers are huge. India, for example, has a rate of just 1 percent, but this represents an estimated 4.0 million people with HIV/AIDS. India is second only to South Africa in the total number of HIV/AIDS sufferers, with levels that are continuing to rise.

Prevalence levels are highest in Cambodia and Thailand. Both countries have shown that large-scale prevention efforts can change the “natural” course of the epidemic. Despite this, there are still major concerns about blood safety and at risk groups such as injecting drug users, spouses of sex workers’ clients and men engaging in homosexual sex.

**Eastern Europe and Central Asia:** have the world’s fastest growing pandemic. By the end of 2001, 720,000 people were living with HIV/AIDS, with 83,000 new HIV positive diagnosis reported in that same year (UNAIDS, 2002). The Russian Federation has experienced an exceptionally steep rise in reported HIV/AIDS infections, since the late 1990s.

**Latin America and the Caribbean:** approximately 1.9 million people have contracted HIV/AIDS, 210,000 of them in 2001. Haiti remains the worst affected, with a prevalence of 6.1 percent; the Bahamas 3.5 percent; and the Dominican Republic 2.5 percent (in 2001). IDU accounts for 40 percent of new infections in Argentina (UNAIDS, 2002).

**The Middle East and North Africa:** an estimated 500,000 people in this region are suffering from HIV/AIDS, 80,000 of them having acquired the

virus in 2001. There were 30,000 deaths in 2001 (UNAIDS, 2002). There is a definite possibility of hidden epidemics in this region.

**High income countries:** there are about 1.5 million people in this heterogeneous group of countries that are living with HIV/AIDS in 2001 and of these some 75,000 became infected in that year (UNAIDS, 2002). Heterosexual sex and IDU increasingly account for the majority of new infections.

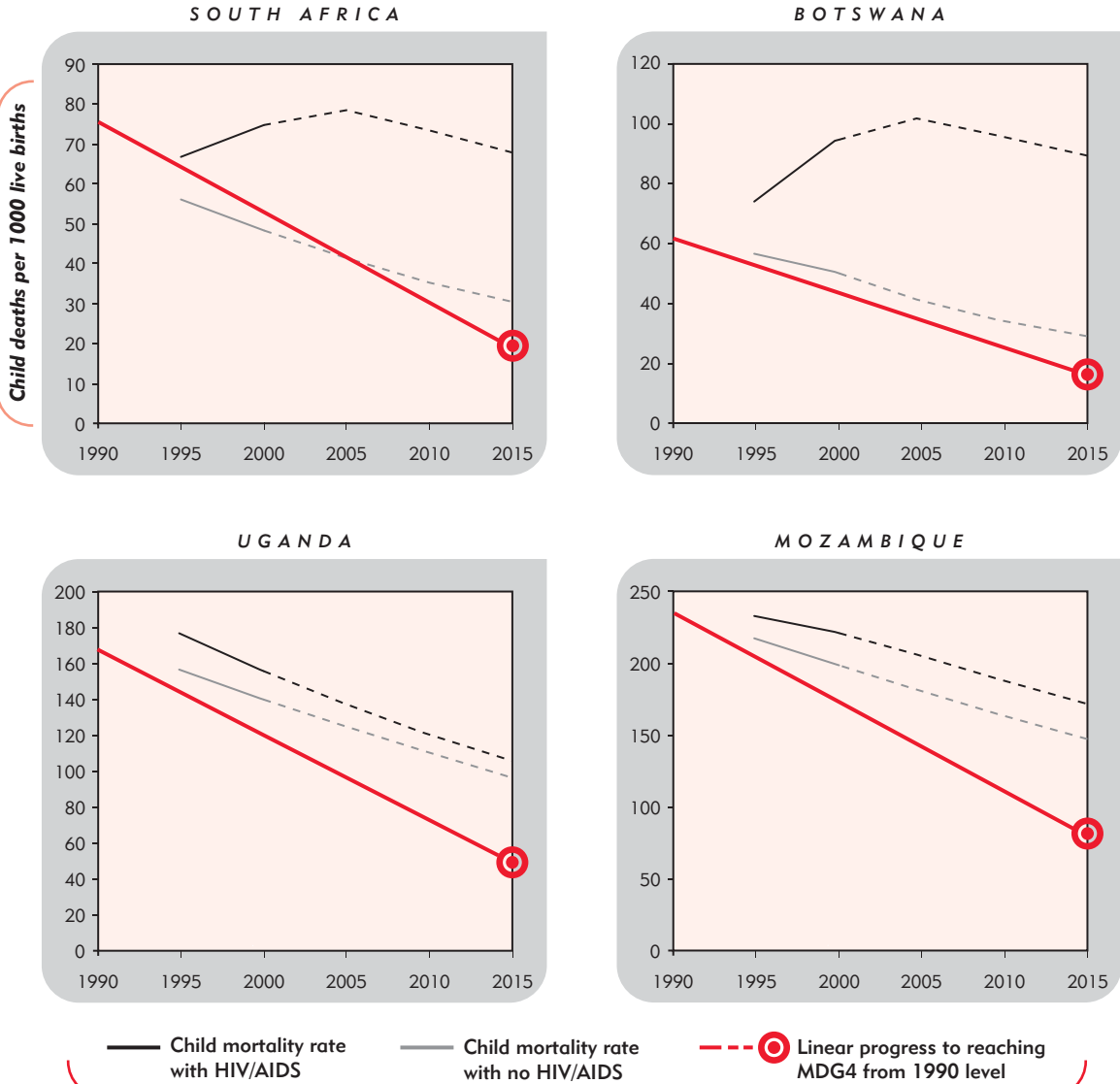
### HIV/AIDS and the Millennium Development Goals (MDGs)

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HIV/AIDS represents a formidable obstacle to the effective implementation of development plans and programmes designed to achieve national and international development goals. Foremost among these are the eight MDGs arising from the Millennium Declaration agreed to by 189 nations at the Millennium Summit in September 2000. For many countries, HIV/AIDS threatens advances made toward achieving some of the MDGs, as is clearly shown in **Figure 1.4** with respect to child mortality. As the pandemic grows, more countries will find achievement of the MDGs by 2015 increasingly difficult and costly. The numerous, interrelated and multidirectional impacts of HIV/AIDS have consequences that go beyond the overt intentions specified by the MDGs. Important links between some of MDG targets that relate to HIV/AIDS, and the impact of HIV/AIDS on the achievement of those targets are readily identifiable below (**Table 1.1**).

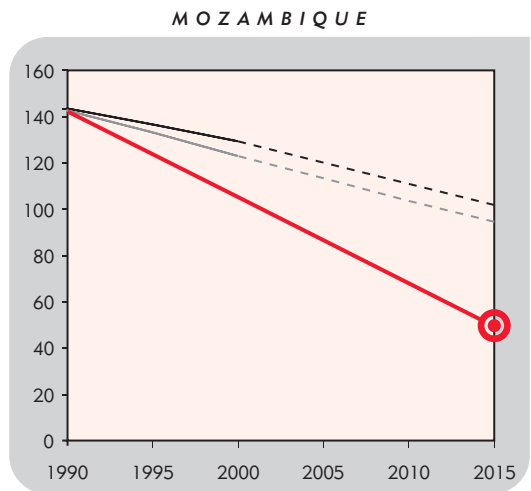
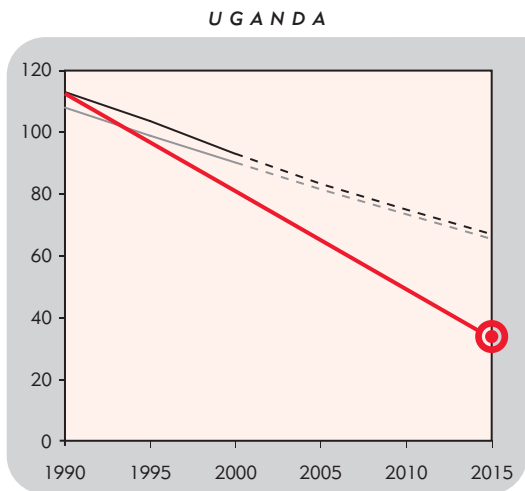
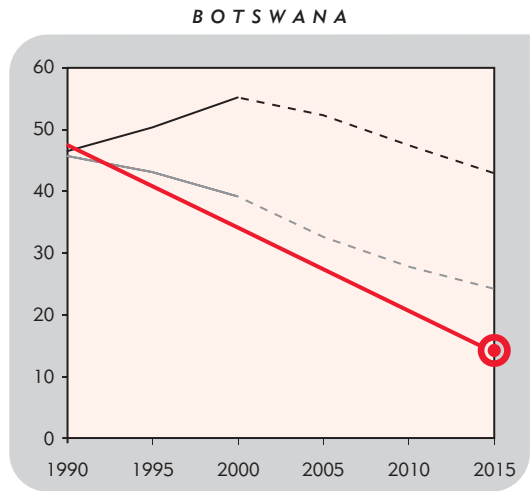
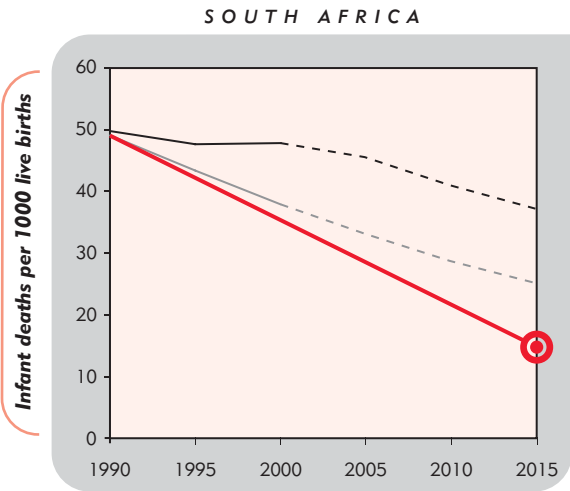
**FIGURE 1.4:** HIV/AIDS pandemic slows progress toward MDG4

*Reduce by Two-Thirds, between 1990 and 2015, the Under Five Mortality Rate*



*continued*

**Infant Mortality Rate**



SOURCE OF DATA: United Nations (2003)

TABLE 1.1: Impact of HIV/AIDS on selected MDG Targets

MDGs AND TARGETS	IMPACT OF HIV/AIDS ON ACHIEVEMENT OF THE TARGETS
<p><b>MDG 1: ERADICATE EXTREME POVERTY AND HUNGER</b></p> <p><b>Target 1</b> Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day</p> <p><b>Target 2</b> Halve, between 1990 and 2015, the proportion of people who suffer from hunger</p>	<p>HIV/AIDS has a direct and deep negative impact on household and income poverty. Expenses increase while income falls. Girls and boys are withdrawn from school, encouraged to work, and subject to sexual exploitation. Access to schools, health facilities, and other public services are constrained by household poverty and gaps in delivery of services.</p> <p>Agricultural production by affected households tends to decline and land is left fallow, mortgaged or sold. Depending upon agricultural policies, overall production levels may not decline, but access to food by poor households, orphaned and street children, will become more problematic.</p>
<p><b>MDG 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION</b></p> <p><b>Target 3</b> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</p>	<p>National resources are being diverted to health from education. Teacher absences from the classroom affect the quality of education. Inadequate replacement of teachers lost to HIV/AIDS and retirement may leave some schools without sufficient staff, and many children are withdrawn from school to assist families to cope with HIV/AIDS illnesses and deaths.</p>
<p><b>MDG 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</b></p> <p><b>Target 4</b> Eliminate gender disparity in primary and secondary education, preferably by 2005, and to all levels of education no later than 2015</p>	<p>Girls tend to be withdrawn from school before boys in order to reduce household expenses and assist in the care of relatives who are suffering from AIDS. Equal access may be achieved on paper, but local conditions will not make educational equality a reality.</p>
<p><b>MDG 4: REDUCE CHILD MORTALITY</b></p> <p><b>Target 5</b> Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</p>	<p>In the absence of drug therapies, children born to HIV-positive women may also be HIV infected or become infected while nursing. HIV-infected infants rarely live beyond age two. Children orphaned by the death of a parent to HIV/AIDS are more likely to be malnourished, have less access to health care, and to receive less adult care than non-orphaned children.</p>

continued

MDGs AND TARGETS	IMPACT OF HIV/AIDS ON ACHIEVEMENT OF THE TARGETS
<p><b>MDG 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</b></p> <p><b>Target 7</b> Have halted, by 2015, and begun to reverse the spread of HIV/AIDS</p>	<p>Controlling the spread of HIV/AIDS and its impact varies with socio-cultural and economic conditions. Responses to those conditions and to the pandemic are partly political: recognizing and taking effective action against HIV/AIDS and the conditions that foster its spread; and partly economic: having the resources to reduce inequalities and poverty. Both of these conditions can be met, but past experience with HIV/AIDS suggests a need for far greater activism and positioning responses within a development context.</p>
<p><b>MDG 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT</b></p> <p><b>Target 17</b> In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries</p>	<p>With the rapid spread of HIV/AIDS there needs to be considerable expansion in the provision of access to affordable drugs and treatment for which many low-income countries will need increased support, including capacity building, from high-income countries.</p>

Most country-level MDG reports are direct and frank about the challenges to have halted by 2015 and begun to reverse the spread of HIV/AIDS (Table 1.2). The report for Nepal, for example, states that achievement of the target “will remain unrealized, given the present epidemiological trend and the level of on-going effort.” The report does not comment on progress toward other targets in the light of the constraints imposed by the HIV/AIDS situation. The report for Tanzania argues that “Achieving this target will be... challenging” for several reasons, including the prevailing depth of poverty and gender inequalities. For Viet Nam, the report states: “The epidemic... has ample room for growth”. Effective leadership and expanding youth access to health care are among the suggestions offered for improving the likelihood of controlling HIV/AIDS.

The gender and class inequalities that opened the way for the spread of HIV/AIDS remain and make achievement of the MDG goal on HIV/AIDS problematic in many countries, especially when the indicators adopted focus on local areas and particular population groups (Box 1.1).



A lack of financial and technical capacity is one reason that achievement of the MDGs appears to be a distant target. Despite the call of MDG8 for a global partnership for development, neither national nor international resources exist at anywhere near the levels required. The World Bank, for example, estimates that between US\$40-\$60 billion a year in new international funding is needed to achieve the MDGs (Devarajan, Miller and Swanson, 2002). The Global Fund to Fight AIDS, Tuberculosis and Malaria, is severely under-funded and unable to provide the level of grants that governmental and non-governmental groups consider are necessary to sustain prevention, care and mitigation programmes. Further, the United Nations Funds and Programmes continue to experience severe constraints on their core resources despite their impressive track record in supporting national development efforts.

Halting the spread of HIV/AIDS will also depend on rebuilding social welfare systems and infrastructures, addressing more vigorously the power relationships between men and women and between youth and adults, and breaking down socio-economic inequalities with more and better jobs for millions of people.

As the epidemic grows and as less costly treatment regimes become available, new sets of issues will emerge, especially for mitigating the impact of HIV/AIDS. For example, even with controlled or subsidized prices, drug treatment regimes are likely to be a major financial burden on many households. Existing impact assessments point to significant disinvestments by families as they seek medical care. Productive assets have been sold, children have been removed from school, and crops have been abandoned. The findings from development impact assessments can clarify the links between HIV/AIDS and the MDGs. In turn, these findings can be used to attract greater attention, mobilize support and harness expanded resources.

Box 1.1

Recommended Indicators for Monitoring MDG6, Target 7

**Goal 6:** Combat HIV/AIDS, malaria and other diseases

**Target 7:** Have halted by 2015 and begun to reverse the spread of HIV/AIDS

**Indicator 18:** HIV prevalence among 15-24 year-old pregnant women

**Indicator 19:** Condom use rate of the contraceptive prevalence rate<sup>a</sup>

(a) Condom use at last high-risk sex

(b) Percentage of population aged 15-24 with comprehensive correct knowledge of HIV/AIDS<sup>b</sup>

**Indicator 20:** Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14

**a** Amongst contraceptive methods, only condoms are effective in preventing HIV transmission. The contraceptive prevalence rate is also useful in tracking progress in other health, gender and poverty goals. Because the condom use rate is only measured amongst women in union, it is supplemented by an indicator on condom use in high-risk situations (indicator 19a) and an indicator on HIV/AIDS knowledge (indicator 19b).

**b** This indicator is defined as the percentage of population aged 15-24 who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can transmit HIV. However, since there are currently not a sufficient number of surveys to be able to calculate the indicator as defined above, UNICEF, in collaboration with UNAIDS and WHO, produced two proxy indicators that represent two components of the actual indicator. They are the following: a) Percentage of women and men 15-24 who know that a person can protect herself from HIV infection by “consistent use of condom”. b) Percentage of women and men 15-24 who know a healthy-looking person can transmit HIV. Data for this year report are only available on women.

**TABLE 1.2:** Country Millennium Development Goal Reports (MDGRs) and HIV/AIDS

<b>COUNTRY AND YEAR OF MDGR</b>	<b>Commentary on Target 7 (MDG6): Have halted by 2015 and begun to reverse the spread of HIV/AIDS</b>
<b>ALBANIA (2002)</b>	Uses “officially diagnosed cases” to determine prevalence; basic awareness raising activities, but no strategic action plan to maintain low prevalence.
<b>ARMENIA (2001)</b>	Low general prevalence, but among injecting drug users and commercial sex workers; national action plan in process of being officially adopted; limited public awareness and few prevention activities.
<b>BHUTAN (2003)</b>	Low prevalence with cases detected as indicator (currently 38 cases) but seen as a national concern due to high prevalence of STDs and regional threat of HIV; high number of sex workers in border towns; strong political and royal support for HIV and reproductive health issues.
<b>BOLIVIA (2002)</b>	Recognizes an “incipient epidemic” with low HIV prevalence in all groups; resources constraints hinder prevention activities; “weak” use of data to inform policies and programmes.
<b>BULGARIA (2003)</b>	Goal modified to “limit the spread of HIV/AIDS, Syphilis and Tuberculosis” using HIV/AIDS prevalence as indicator and <1% as a target; low prevalence (<0.01%) but notes regional crisis and high rates of syphilis nationally; limited discussion on strategy.
<b>CAMBODIA (2001)</b>	HIV prevalence among adults nearly 3 percent; recent surveys indicate a stabilization of trend, but numerous risk conditions exist; impact on children acknowledged; implementing a multi-sectoral response remains to be achieved.
<b>CAMEROON (2001)</b>	Although HIV/AIDS prevalence has increased in recent years to nearly one million people, the country “potentially” is able to meet target; long-term development impacts acknowledged; multi-sectoral strategic plan being implemented, but ability to apply data to formulation considered “weak”.
<b>CAMEROON (2002)</b>	High prevalence rate increased from 11.0 percent in 2000 to 11.8 percent in 2001; still potentially able to meet the target with National Plan to Combat HIV/AIDS in place using a multi-sectoral approach; statistical capacity considered slightly improved to “fair”, with more discussion of strategy than in earlier MDGR.
<b>CHAD (2002)</b>	Estimated 7-9 percent of adults are HIV infected, with acknowledged socio-economic impacts likely to result; political and civic society commitment to strengthen prevention embodied in a national strategic plan.

*continued*

<b>EGYPT (2002)</b>	Low prevalence, but data is too weak to determine whether the country will meet 2015 target; national strategy remains to be developed while including key stakeholders taking into account religious sensitivities.
<b>GUATEMALA (2002)</b>	Prevalence just below 1 percent, but increasing; epidemic currently concentrated among men who have sex with men, commercial sex workers and the military; strategic plan being implemented; but “little probability” of achieving target.
<b>GUINEA (2003)</b>	A national target has been set; to limit prevalence to less than 5 percent (currently 2.8 percent) through a multi-sectoral approach; socio-economic impact receives little attention.
<b>KAZAKHSTAN (2002)</b>	Uses “registered cases” of HIV to indicate low prevalence, but acknowledges much higher rates; risk situations are numerous and acknowledges weak awareness raising for at risk groups and the general public which requires correction.
<b>LITHUANIA (2002)</b>	Very low prevalence rate; most infections among injecting drug users and in prisons; multi-sectoral response suggested, but action plans will need to be implemented.
<b>MADAGASCAR (2001)</b>	Low prevalence, but upward trend; country notes that if the trend continues, it will not meet the 2015 target; national strategic action plan being implemented to increase prevention efforts.
<b>MAURITIUS (2001)</b>	Prevalence low, presently concentrated among commercial sex workers, but growing; free government services noted as one reason for low rates; national strategic plan in place with measurable objectives.
<b>MOZAMBIQUE (2002)</b>	Twelve percent of adults HIV infected and one-third of children born to infected mothers also HIV-positive; young orphaned children noted at risk of death; impact on health sector noted; absence of basic services across rural areas noted as contributing factor; supports advocacy to assure effective implementation of strategic plans and programmes.
<b>NEPAL (2002)</b>	Prevalence thought to be low, but HIV/AIDS spreading rapidly; achievement of the target “will remain unrealized” given current level of prevention efforts and prevailing risk conditions; high-level awareness increasing.
<b>PANAMA (2003)</b>	Very low rates based on prevalence in pregnant women between 15-24 years old (1:800 to 1000); report lacks focus on HIV/AIDS strategies.

<b>PHILIPPINES (2003)</b>	Low HIV prevalence rate (0.02 percent); Sexual intercourse as predominant mode of transmission; described as a “nascent epidemic”; National AIDS Control and Prevention Program and National AIDS Council take a multi-sectoral, active approach; slow increase in prevalence attributed to early prevention.
<b>POLAND (2002)</b>	The wording of the Goal is “ less relevant in the case of Poland. Although the spread of HIV/AIDS is also a problem faced by Poland, for the time being it is not assuming dimensions that would pose a threat to the population.
<b>SAUDI ARABIA (2002)</b>	Very low prevalence and recent decline in reported cases of AIDS, due, in part, to active prevention education programme; the country is “well-positioned to meet the set goals on AIDS...”
<b>SENEGAL (2001)</b>	The country has kept the epidemic under control, but prevalence has steadily increased over the past decade; maintains a vigorous prevention programme and political dialogue to support prevention; will probably meet the goal.
<b>TANZANIA (2001)</b>	Prevalence has increased over the past ten years and now is over 10 percent of women; gender inequalities is one of several challenges to reversing the trend and reaching the government’s goal of reducing infection rates by a quarter by 2015; political commitment is strong and multi-sectoral strategy is being implemented.
<b>VIET NAM (2001)</b>	Although low, there are an increasing number of people infected with HIV/AIDS across the country; lack of coordination in implementing a prevention strategy; strong political leadership and multi-sectoral approach are needed for country to mount a programme that will meet the Goal.
<b>VIET NAM (2002)</b>	Low prevalence in general population (0.29 percent of adults), with much greater prevalence in high-risk groups (injecting drug users, female sex workers, STI patients, military recruits); aims to eliminate linkages made between social evils and HIV infection; challenge to garner high-level leadership support and encourage multi-sectoral partnership.



### HIV/AIDS in the Context of Development

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There is a reciprocal relationship between HIV/AIDS and development. In countries with a high prevalence of HIV/AIDS, the epidemic has a profound impact on development, but the social and economic conditions being addressed by the development process also have major consequences for the spread of the disease.

Major emphasis is placed on impact assessments since they constitute such an important and versatile analytical tool. They provide information that can be used not only for advocacy but also for planning both the prevention and mitigation of HIV/AIDS. The information generated by an impact assessment, however, needs to be viewed in the development context in which HIV/AIDS epidemics are occurring. This chapter therefore seeks to place HIV/AIDS within the context of development.

The impact of the state of development worldwide, or in a particular country, is far less commonly considered as a significant influence on the expansion and prevalence of the HIV/AIDS epidemic. Even researchers in the HIV/AIDS field have rarely sought to understand why a relatively difficult-to-transmit virus has spread rapidly and become endemic in some societies, but not in others, despite the first-known infections occurring just as early in the onset of the pandemic.

Epidemics are as much socio-cultural as biological phenomena. Anthropologist Brooke Schoepf, having studied a number of other epidemics before HIV in Africa, finds them “socially produced.” She

explains: “A biological event (such as the presence, introduction or evolution of a pathological agent) triggers disease which is amplified and given direction by the social forces set in motion by economic change” (Schoepf, 1991). For Alan Whiteside, while the proximate causes of being infected by HIV are biological and a person’s sexual behaviour is the next most proximate cause, sexual behaviour is shaped and constrained by economic, social and especially cultural factors (Whiteside, 2002).

HIV/AIDS prevention efforts have sought to change the behaviours of individuals, paying too little (if any) attention to the socio-economic development context in which people must make their decisions on how to live. Countless surveys of people’s knowledge, attitudes, beliefs and practices point to a persistent and dangerous gap between many people’s awareness, attitudes and knowledge with regard to HIV/AIDS and their practices. Thomas Painter is among those who reason that this gap between what people know and how they behave might well be the result of the social and economic realities that constrain individual actions (Painter, 1996). Working to prevent the further spread of HIV, therefore, requires probing the development context of the HIV/AIDS epidemics, both the impact of HIV/AIDS on development efforts and processes and the socio-economic and political stimuli to the spread of the virus.

### Poverty and HIV/AIDS Epidemics

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Human development is defined as a process of enlarging people’s choices (Human Development Report (HDR) 1999). In these terms, poverty is patently antithetical to development since poor people are deprived precisely of those choices that could significantly enhance their well-being.

Poverty is the issue most often cited by those who do comment on the development context of the spread of HIV and it is seen as the key factor leading to behaviours that expose many people to the risk of HIV infection. Medical anthropologist Paul Farmer, who has worked extensively in Haiti, argues that poverty cannot be considered as just another co-factor alongside biological considerations, gender inequality and cultural norms. “All of the biological factors predisposing girls and women to increased risk of [HIV] infection – from chronic anaemia to genital cutting and early first coitus – are aggravated by poverty” (Simmons, Farmer and Schoepf, 1996).



A lack of control [by poor women] over the circumstances in which intercourse occurs may increase the frequency of intercourse and lower the age at which sexual activity begins. A lack of access to acceptable health services may leave infections and lesions untreated. Malnutrition not only inhibits the production of mucus but also slows the healing process and depresses the immune system (Stillwagon, 2001, cited in Barnett and Whiteside, 2002a). Moreover, once a person is infected with HIV, the onset of AIDS is likely to be hastened by malnutrition.

In 2002, the Commission on Macroeconomics and Health of the World Health Organization (WHO) reported: “Absolute poverty rates, defined as income below US\$ 1 a day, are strongly associated with HIV-prevalence rates” (WHO, 2002), as are other dimensions of poverty correlates, such as literacy, malnutrition, access to water, sanitation, and health, including reproductive health, services.

#### Box 2.1

#### Poverty or Impoverishment?

If, on a worldwide basis, poverty drives the HIV/AIDS epidemic, what causes poverty? When we call people “poor”, we are in danger of losing sight of the reality that, by and large; they are made and kept poor. Poor people might more accurately be referred to as *impoverished* people. They are impoverished by inequitable social and economic structures – on the household, village, national and global levels – that often deprive the majority of people of access to productive resources. As Farmer notes, “risk behaviours” and other facile terms in the discourse about HIV/AIDS “exaggerate individual agency and leave unacknowledged and unexplained the ways in which large-scale social and economic factors structure risk for individuals and groups, particularly those who are systematically marginalized from power and from access to the goods, services, and opportunities which power ensures” (Simmons, Farmer and Schoepf, 1996).

While it is more cumbersome to say “impoverished” than “poor,” use of the term encourages analyses of those situations/conditions about which solutions and processes toward solutions can be found. For example, women may be impoverished when their husbands die of AIDS because they lose rights over, and access to, land. Knowing the cause of their poverty allows for design of meaningful mitigation policies and programmes. By contrast, when we cite “poverty” as an outcome rather than a cause of HIV/AIDS, we run the danger of obscuring the root causes of, and the solutions to, the impact of the epidemic.

Some analysts caution that, not only poor people, become infected with HIV. Income and gender inequalities allow men with wealth – real and relative wealth – to buy sex or gain it with favours, such as for food and clothing, and thereby increase the risk of the transmission of sexual infections including HIV.

Across the world, however, there is evidence that, as the HIV/AIDS epidemic matures, it becomes increasingly concentrated in impoverished populations. The WHO Commission also reported that “Existing data provide some indication that the relationship between poverty and HIV is growing stronger over time” (WHO, 2002) with countries with greater income inequality facing a more serious epidemic.

In Brazil in the mid-1980s, three-quarters of the people newly diagnosed with HIV/AIDS had at least secondary schooling; by the early 1990s, this share had fallen to one-third (Parker, 1998, cited in Ainsworth, Fransen and Over, 1998). Everywhere, the poor not only have less schooling but less access to information and health care services, and are therefore more likely to be forced by hardship and marginalization into making sub-optimal choices (Bloom, Sevilla and River Path Associates, 2001b; World Bank, 1997).

Recent research in Cambodia, a country with one of the most advanced epidemics in Asia, demonstrates that the poorest segments of society have much less knowledge of how HIV/AIDS is transmitted and prevented; are more likely to have sex at a younger age; use condoms less frequently; are far less likely to know where to get tested and, in the case of young women, are more likely to turn to sex work as a means of supporting themselves and their families (Bloom, Sevilla and River Path Associates, 2001b). Similar findings emerge from the Demographic Health Surveys (DHSs) conducted in a large number of countries.

Farmer (1999) analyses the risk of infectious disease in terms not only of poverty but also of inequality, that is, “unequal social and economic positioning”. Wilkinson, in his research on health in high *per capita* income countries, similarly concludes that inequality is pivotal in determining health outcomes. “It is now clear that the scale of income differences in a society is one of the most powerful determinants of health standards in different countries, and that it influences health through its impact on social cohesion” (Wilkinson, 1996). South Africa, a country

with notably high *per capita* income compared with most other countries in Africa, suffers from the greatest inequality in terms of income and access to economic resources such as land. South Africa has seen an explosion in HIV prevalence and the already extremely high rates have continued to rise (Barnett and Whiteside, 2002a).

Poverty and gender are inextricably intertwined. A disproportionate share of the world's poor are women and girls. But gender alone does not define risk; it is *poor* women and girls who are most susceptible to HIV infections (Farmer, 1996d). In Botswana, with the world's highest known HIV prevalence, even though it has the second highest *per capita* income in Africa, one in every two persons in Botswana is trapped in poverty, the majority of whom are female (UNDP, 2000a).

Poor people also often lack access to health services, especially reproductive health services. The debilitating state of sexual health of the poor, especially very high rates of untreated sexually transmitted diseases (STDs) and non-specific bacterial and parasitic vaginal infections among women, is often cited as an important co-factor in the heightened susceptibility of many women in Africa and Asia to HIV infection. A population-based study of the women in a village in India found very high rates of genital infections and a dismissive attitude towards poor women seeking help. Again, gender and poverty are inextricably intertwined, each compounding the other. In most countries a poor woman is the least likely person to have access to proper medical attention. Even when medical services are provided, the quality of care is inversely proportional to one's social status and, for instance, poor women run a high risk of being treated with unsterile syringes.

Urban poverty has created the perfect machinery for the continued propagation of HIV, even in countries of great wealth. Robert Fullilove notes, in relation to the United States of America, that "Inner city poor neighborhoods often shelter a vigorous drug trade, numerous opportunities for strangers to engage in drug-mediated, unprotected sex, and numerous locations where these and other risk behaviors [such as intravenous drug use] go virtually unchallenged" (Fullilove cited in Farmer, Connors and Simmons, 1996).

In the United States, HIV has moved almost unimpeded through poor communities of colour. In 2000, African-Americans, who comprise

approximately 12 percent of the population, made up more than 27 percent of the country's poor and accounted for 47 percent of all reported cases of HIV/AIDS (Centers for Disease Control, 2000). The cumulative incidence of HIV/AIDS was more than 20 times higher for women of African descent, and seven times higher for Hispanic women than for Caucasian women (US Bureau of the Census, 2002). Anthropologist Martha Ward, however, gives us an important reminder about any focus on ethnicity. The collection of statistics by ethnicity rather than by socio-economic status obscures the fact that the majority of women with AIDS in the United States are poor. Women are at risk of HIV not because they are African-American or Hispanic: women are at risk because poverty is the primary and determining condition of their lives (Ward, 1993a).

### Poverty-Driven Survival Strategies

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Many impoverished people seek out livelihoods that hold out the promise of survival, or even something better than survival, for themselves and their families. People whose livelihood strategies expose them to high risk of infection, precisely because they are impoverished, are less likely to take seriously (or have the resources to take seriously) the threat of an infection that is fatal years from now: they are struggling with day-to-day survival for themselves and their families. "To take the long-view in sexual or other behaviours is antithetical to the condition of being poor. For the poor it is the here and now that matters" (Cohen, 1998a).

Migration for work and commercial sex work (or the exchange of sexual favours for gifts) are two survival strategies that numerous studies have linked with the risk of HIV infection.

#### **Labour migration**

Migration is the livelihood strategy of many millions of people, mostly young people and especially young men, who face the prospects of unending poverty in their home areas. They travel in search of work, some within their countries and others across international borders, some to towns and cities and others to plantations and mines.

In many developing countries, the development paradigm, often imposed by and for colonial powers and pursued since by neo-colonial elites together with transnational corporations and international agencies, has focused on exporting agricultural products and minerals. The

plantations, mines and industries – development enclaves from one point of view – have required and attracted massive quantities of labour from traditional rural areas. In some places, large-scale infrastructure projects, such as roads and dams built for power generation or irrigation, have displaced farmers and thereby forced whole rural communities to migrate in search of livelihoods elsewhere.

The epidemiological relationship between migration and HIV status is well documented (Decosas and Adrien, 1997; Kane *et al.*, 1993; Santarriaga *et al.*, 1996; Pison *et al.*, 1993; Decosas, 1996a; Usher, 1992; Wawer *et al.*, 1996; Wawer *et al.*, citing Phongpaichit, 1982; Abdoo *et al.*, 1992; Decosas, *et al.*, 1995; Brontman *et al.*, 1996; Rugalema *et al.*, 1999; Shreedhar, 1995; Barnett and Whiteside, 2002a). Labour migrants have been found to have higher infection rates than those who do not migrate, independent of the HIV prevalence at the site of departure, or the site of destination. While there are far fewer female migrants than male migrants, several case studies point to the same basic theme of rural impoverishment leading to migration in search of a livelihood (Usher, 1992). Moreover, the number of female migrants is on the rise.

Typically, the conditions migrant workers encounter include long absence from the social control of the home environment, housing in single-sex hostels, lack of access to reproductive health services and medical care for STDs, alcohol and other substance abuse related to loneliness and boredom, and “a dysfunctional symbiosis between migrant labor and sex work” (Abdoo *et al.*, 1992; Decosas, 1995; Brontman, 1996). These labour sites typically have a vast excess of young men who obtain sexual services from a very small number of female sex workers. The men need not be sexually very active. During their six-month stay on a plantation or at a mine several of the men may buy the services of a female prostitute only once each payday. Each time they do, however, they have a partner who has sexual intercourse with 15 to 30 men within the same day (Decosas and Adrien, 1997). The probability of exposure to a sexually transmitted infection (STI) is thus very high.

Most labour migration is circular and workers eventually return to their home villages. It is noteworthy that the countries that send migrants to South Africa have even higher rates of HIV prevalence than South Africa itself. “South Africa is the crucible for HIV transmission in the region.... Infected men return to their home communities where ‘local’ epidemics

are established (Barnett and Whiteside, 2002a).” It is these communities that invariably bear the impact of increased illness and death.

**Commercial and Sex work**

Sex work is a desperate survival strategy followed by many women and girls, and, to a far lesser extent, by men and boys. It can sometimes be a more lucrative alternative to existing poorly remunerated employment “opportunities”. In no other area is the evidence for the economic determinants of HIV-risk behaviour clearer than it is for commercial sex work.

Commercial sex work thrives especially in societies characterized by large proportions of people living in extreme poverty.

*“For poor women AIDS is just another problem they are blamed for and have to take responsibility for. They ask, ‘How am I going to take care of my family? I have to put food on the table now.’ ‘You think AIDS is a problem! Let me tell you – I got real problems.’” —Martha Ward, 1993b.*

Sex work that is poverty-driven is likely to foster behaviours that are more risk-taking than might otherwise be the case. Poverty is a compelling reason to accept a client who refuses to use a condom. “Sometimes, I will allow it (sex without a condom). Sometimes, not. If I have no alternative, no money to buy food, I would accept” (Wawer, 1996).

While there are many millions of women and men who engage in commercial sex work on a regular basis, even more people not thought of as “commercial sex workers” find themselves needing to exchange sex for money or goods on an occasional basis (Cohen, 1998a). Anecdotal evidence from several regions suggests that poverty and increased costs for goods and services, such as fees for primary schooling, have caused many mothers to turn to sexual transactions in order to obtain desperately needed money. Many also report that in societies shot through with social inequalities, so-called “sugar daddies” (older men with money) procure the sexual services of young girls in exchange for gifts or spending money.

**Enabling the epidemic**

Tanzanian social scientist, Gabriel Rugalema, investigated the impact of AIDS in a village in the severely affected northwestern part of his country. He asked the villagers what they thought about AIDS. “In general, they did

not think of AIDS as something terribly new. Rather, they saw it in the wider context of other crises predating it” (Rugalema, 1999).

For Tanzania and most developing countries, the last quarter of the 20th century was characterized by the latest round of a series of sharp and often long-term development shocks. Three related shocks are frequently cited: oil price hikes, debt crises and structural adjustment programmes (SAPs). In addition, many countries suffered droughts and/or flooding as well as armed conflicts. The majorities in many affected countries saw their lives deteriorate in every way, while local and international elites enriched themselves ever more. Indeed, disillusionment and despair became widespread in contrast to the period of optimism when many nations won their independence from colonial rule. While no one would argue that these shocks “caused” the AIDS epidemic, they did help create an environment highly conducive to its spread into the general population of an STI, and did so just at the time when HIV was entering into societies around the world.

During this critical period in the history of HIV/AIDS, economic and SAPs were the favoured policy instruments of some international development agencies, notably the IMF and the World Bank. Therefore, it is especially fitting to analyse linkages between SAPs and the heightened susceptibility and vulnerability to HIV/AIDS. The relevant impacts of SAPs have been well documented.

Analyses of the SAPs (for instance, those cited in Collins and Rau, 2000) clearly show how many of the policy prescriptions deepened and widened impoverishment rather than reducing it, thereby making many more people susceptible to HIV and vulnerable to the impact of HIV/AIDS. The SAPs, informed by a neo-liberal, free-market ideology, among other things, mandated cutbacks in public spending on health care and other social services. Between 1980 and 1985, there was a substantial decline in spending on health, education and other social services for low-income persons. In all low-income countries (excluding India and China), health spending dropped from 5.5 to 2.8 percent of (shrinking) national budgets over the same period (UNDP, 1990).

At the beginning of the 1990s, the average annual *per capita* expenditure on health by African governments was a mere US\$2.00 (Weeks, 1992). In many countries during this period, governments agreed to charge fees for

Box 2.2

### Militarism and HIV/AIDS

Wars and civil violence have contributed to situations of increased susceptibility to HIV/AIDS, but epidemiological data are usually lacking in affected areas.

Warfare represents a major opportunity cost for low-income countries. Military expenditures divert resources from health care and reproductive health services, especially STD treatment and other forms of HIV prevention.

All of the countries of Eastern and Southern Africa have been engaged in or have experienced repercussions from wars or major civil violence since the mid-1970s. It is in these regions of Africa that the epidemic is most severe.

Military expenditure since the early 1990s has exceeded health investment in almost every country in Africa, Latin America or Asia (Stockholm International Peace Research Institute, 1991). In 1999, for example, Zimbabwe was spending about 70 times more on its military presence in Congo than it was on HIV/AIDS prevention (Sayagues, 1999). Some developed countries have also been increasingly spending more on military and cutting back on social services.

Service in the military fosters an HIV risk environment, both for military personnel and for the civilian population with whom they come in contact. It is not uncommon for soldiers to engage in rape and coerced sexual relations. Occupying forces frequently turn to local sex workers and can thus both acquire and spread HIV. Some African military forces now have HIV prevalence rates of 50 percent or higher.

Military conflicts over the past quarter-century have displaced millions of people and created large refugee populations. Refugee camps (due to people's uprootedness from traditional livelihoods and mores, close living quarters and the like) often constitute risk environments. Communities hosting refugees can become centres of commercial sex work. Demand, opportunity and resources exist to foster this kind of employment. (Refugee Policy Group, 1997; "AIDS Pandemic Grips Tanzania," 2000).

previously free medical services. For example, when the World Bank directed Kenya to implement a charge of US\$2.15 for STD services in public clinics, attendance fell by 35 to 60 percent (Moses *et al.*, 1992). Similar decreases in clinic utilization in the wake of the introduction of, or increases in, user fees have been reported in Mozambique, Democratic Republic of the Congo, Ghana and Zimbabwe (de Bethune, Alfani and Lahaye, 1989; Waddington and Enyimayew, 1989; Logie, 1993).



In many countries, most notably in sub-Saharan Africa, nothing could have been more inappropriate than decreasing access to health services, given the already very high rates of untreated STDs (Grosskurth, 1995), and non-specific bacterial and vaginal infections, now recognized to be a leading factor in the spread of HIV infection. Cutbacks in funding for public clinics reportedly also encouraged the reuse of disposable syringes, potentially contributing to HIV transmission (Mann, 1986).

### **Disillusionment**

These shocks add to real or perceived insecurity, especially for young people, and highlight the poor financial returns from traditional livelihoods. Hope that younger generations can improve their material well-being from rural enterprise has been heavily eroded. At the same time, long-established patterns of migration to employment centres have not provided as much opportunity as in the past. Schooling also has become less of an assurance of advancement than it used to be. From the 1980s onward, these structural shocks affected expectations, hopes and commitment to work within the prevailing economy.

Overall, growing disillusionment and social rejection have made the long-term prospects of dying from AIDS far less frightening than the immediate need for food or companionship, or for social acceptance in a military unit. Richards writes: “HIV/AIDS cuts short the normal life expectation, and already [c. 1999] young people in Tanzania make it clear that they have to work with the space they will get. Life has to be lived to the full, but perhaps over 30-40 years rather than a normal three score years and ten” (Richards, 1999). He continues: “If we simply treat HIV/AIDS as a disease, rather than seeing it as an integral and important element in a social maelstrom of youth, then we shall continue to misunderstand the significance of HIV/AIDS for Africa, and continue to underestimate the efforts of those who seek constructive change rather than opportunistic exploitation of crisis scenarios”.

A study of young people in central Ghana uncovered similar attitudes that, while they may not be capable of universal generalization, definitely reflect the situation in which many young people now find themselves. There is a tendency to ask, “Why should I change my sexual behavior when I see little hope for improvement in life’s opportunities?” “Such attitudes toward death in the era of AIDS point to apparent misunderstanding or lack of motivation for behavioural change in the exist-

ing socioeconomic circumstances” (Awusabo-Asare *et al.*, 1999). It seems that such attitudes are not statements of fatalism but of realism and disillusionment.

In sum, dramatic and prolonged shocks have shaped the environment in which HIV/AIDS has found fertile ground. Several of the shocks noted here are direct outcomes of development paradigms pursued by international development partners. Other shocks reflect deep structural factors (some social and cultural, others political and economic) that have made many societies and specific groups within society especially vulnerable to conditions conducive to HIV transmission.

**Box 2.3**

**HIV/AIDS through Unsafe Medical Care**

Although many areas of social spending were severely cut as part of Structural Adjustment Programme (SAP) implementation, it is fitting to highlight health-care cut-backs just at a time when HIV epidemics were taking off. A recent review of research has found that, in Africa, unsafe medical conditions and practices may play a large role in the transmission of HIV.

*“An expanding body of evidence challenges the conventional hypothesis that sexual transmission is responsible for more than 90 percent of adult HIV infections in Africa. Differences in epidemic trajectories across Africa do not correspond to differences in sexual behaviour. Studies among African couples find low rates of heterosexual transmission, as in developed countries. Many studies report HIV infections in African adults with no sexual exposure to HIV and in children with HIV-negative mothers. Unexplained high rates of HIV incidence have been observed in African women during antenatal and postpartum periods. Many studies show 20-40 percent of HIV infections in African adults associated with injections (though direction of causation is unknown). These and other findings that challenge the conventional hypothesis point to the possibility that HIV transmission through unsafe medical care may be an important factor in Africa’s HIV epidemic. More research is warranted to clarify risks for HIV transmission through health care.”*

The summary of the findings can be found in Gisselquist *et al.* (2002), <http://www.rsm.ac.uk/pub/std.htm>. Others disagree with these conclusions and contend that unsafe sex is the overwhelmingly important mode of transmission in sub-Saharan Africa.

The impact of HIV/AIDS on development is complex and has widespread repercussions on many facets of a country's well-being. This chapter provides a systematic review of the impact of HIV/AIDS on specific development-related factors that range across the spectrum of demographic, social and economic aspects of society. While it is convenient for the purposes of analysis to distinguish in this way among the elements involved (since each of the sectors addressed has its own explicit problems to contend with), the holistic nature of the challenge and the inter-relatedness of the issues and their management cannot be over-emphasized. The shocks and responses in one sector reverberate through other sectors. For example, the growing number of children orphaned by the death of one or both parents due to HIV/AIDS has a direct impact on school attendance, child labour, child health and the extent and intensity of poverty. The analysis provided in this chapter can advantageously be read in conjunction with Chapter Four, which tabulates material identifying useful indicators, markers and questions for assessing the HIV/AIDS impact in specific sectors.

### **The Rationale for Assessing Impact**

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HIV/AIDS is very personal, but also very global. Its impact is felt by individuals, families, businesses, communities and countries. Families and communities are disinvesting in productive activities as resources are shifted into the care and treatment of people living with HIV/AIDS (PLWA). Children are withdrawn from school and put to work to compensate for the lost labour and income of their households. Families, businesses and government departments are losing the human capital

that has been built up over years and decades. Businesses and governments are losing revenue, productive investments and improvements in services. Furthermore, the impact of HIV/AIDS is multidimensional and cumulative across all levels of society.

It is important to understand the current and future potential impact of the disease at all levels for several reasons. First, an understanding of the impact of HIV/AIDS permits targeting of programmes to assist affected sectors of society, such as the waiving of school fees for orphaned children. Second, an understanding of the impact provides the necessary information to mitigate further losses as in the provision of antiretroviral drugs to employees, as a part of a company's medical benefits. Third, the impact of the pandemic requires adjustments to prevailing development plans and goals such as intensified vocational and technical training to replace skilled workers as quickly as possible. Finally, findings of impact assessments inform and assist decision-makers to plan in order to strengthen prevention, care and mitigation policies and programmes.

### **What Has Been Learned so far**

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Much of what is known about the impact of HIV/AIDS comes from experiences and analyses in sub-Saharan Africa. There, the impact has been most intense and extensive.

Most impact assessments have focused on macro-demographic and macro-economic impacts. Only a handful has been in the form of case-studies of specific groups or geographic areas. Impact assessments, particularly in low prevalence countries, have generally been based on projection models rather than investigation of actual conditions on the ground. Commonly, they are simply snapshots of current or anticipated situations; lacking time-series data to determine or substantiate trends. Also, very few studies have sought to document multidimensional impacts, such as determining how impacts related to HIV/AIDS in one sector lead to changes in other sectors. One such area for concern is the withdrawal of girls from school to help care for sick relatives. Without a formal education, opportunities for girls and young women to obtain decent jobs, actively participate in governance processes, or write their life stories are severely compromised. Although HIV/AIDS is by no means the only reason for such changes, it often is the precipitating factor.

As a result of previous HIV/AIDS-impact studies, it is apparent that current understanding of the impact on different sectors of society is at least three years behind the progress of the pandemic. That is, HIV/AIDS is having a very significant impact well before researchers and analysts get around to studying that impact. Thus, by the time impact findings are generated, at best, responses can only be reactive. This has been especially true in terms of assisting families affected by HIV/AIDS and reducing the loss of skilled, experienced and knowledgeable workers.

This is a general problem since political, social, economic and religious decision-makers all respond belatedly to the existence of HIV/AIDS and to its impact. Denial of the disease and of the losses it causes is a recurrent feature in the response of policymakers. The findings from impact assessments have been only partially successful in drawing attention to either current or future changes and they have been even less effective, to date, in stimulating timely and proactive responses by leaders. This is not to suggest that HIV/AIDS impact assessments are regarded as unimportant, but rather that greater attention needs to be given to how the information generated by such assessments is presented and used.

We have learnt that even more, both quick and more detailed, impact assessments are needed. They are needed in countries where the epidemic is at a low level (less than 1 percent), in order to put effective prevention activities in place. They are needed in countries where HIV/AIDS prevalence is high in order to provide information for planning and implementing mitigation programmes. They are also needed in order to better understand the ability of households and communities to respond to the changes induced by HIV/AIDS.

There remain many geographic and topical gaps in our knowledge about the impact of HIV/AIDS. Remarkably, little is known about the impact in Africa's most populous country, Nigeria, where HIV rates are estimated at over 5 percent of the adult population. Likewise, in countries like the Democratic Republic of Congo or Liberia, where wars have disrupted people and social institutions, little or virtually nothing is known about the impact of HIV/AIDS. China and India have relatively low prevalence, but given the size of their populations, millions of people are estimated to be HIV infected and millions more affected by HIV/AIDS. Yet little work has been done to understand the impact of the disease on people's lives in those countries. Similarly, little is known

Box 3.1

**HIV/AIDS: A Long-Wave Event**

“By the time that even a few people with AIDS are recognized by clinical services (or the community), many more exist whose condition has not been diagnosed or observed; there are even more who are well but infected with the virus. In short, a major problem is that once significant numbers of people begin to fall ill and to die, the HIV epidemic will already be far advanced” (Barnett and Whiteside, 2002a).

The long-wave nature of HIV/AIDS – both a long incubation period in the human body and an even slower and longer unfolding of the impact on social and economic structures – can lead to the misinterpretation of low HIV/AIDS prevalence and give a false sense of security. At any given point in time, low prevalence is a poor indicator of future prevalence and impact. For example, over the decade of the 1990s, HIV/AIDS prevalence grew from around 1 percent to over 20 percent in South Africa. In 1989, in Chiang Mai, Thailand, 1 percent of pregnant women were HIV-positive; six years later, nearly 8 percent were infected.

The pandemic regularly offers surprises and paradoxes. From the beginning, awareness of and responses to HIV/AIDS have been at least two and often three to four years behind the reality of the pandemic. In some cases, prevalence will remain low for years and then suddenly increase rapidly. Prevalence levels may plateau or fall, as in Uganda in recent years, but HIV/AIDS remains embedded in society, ready to expand if conditions allow as they reportedly already have in war zones of that country. Some of the unexpected outcomes related to HIV/AIDS are due to the many gaps in current knowledge about the virus. But mostly, the surprises are because of the lack of attention to the prevailing, longer-term socio-economic and political conditions that foster risk and to the growing body of evidence about the impact of HIV/AIDS on social and economic structures as the pandemic grows.

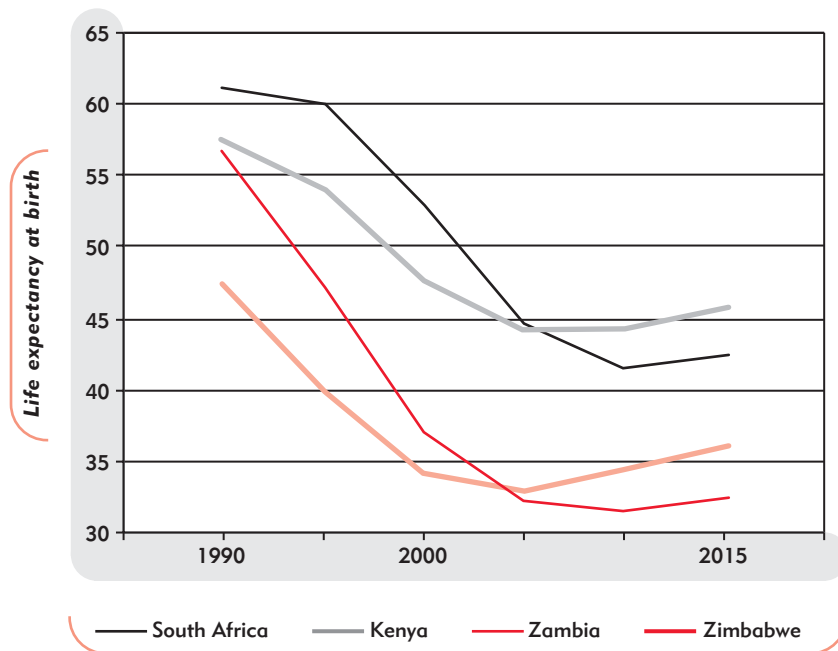
about the impoverishment of families and communities arising from HIV/AIDS, or about changes (gains and losses) in asset ownership. It is logical to assume that changes are occurring, but the data to substantiate these assumptions are largely absent.

**Demographic Impact of HIV/AIDS**

The immensity of the impact of HIV/AIDS on mortality, population size and other demographic variables is conspicuous and alarming in the high prevalence countries of sub-Saharan Africa. Elsewhere the demographic impact remains low but can be expected to increase as the pandemic spreads.

**Increases in death rates** due to HIV/AIDS are significant in moderately and highly affected countries. In southern Africa, for example, the crude death rate is estimated to be 18 per 1,000 in the period 2000/5, compared with 8 per 1,000 a decade earlier. In a no HIV/AIDS scenario, this figure of 18, would have fallen to 7 per 1,000 in 2000/5 (United Nations, 2003). Increases in death rates are particularly concentrated among people aged 15-49 and young children.

**FIGURE 3.1:** Trends in Life Expectancy, 1990-2015, Selected sub-Saharan African Countries



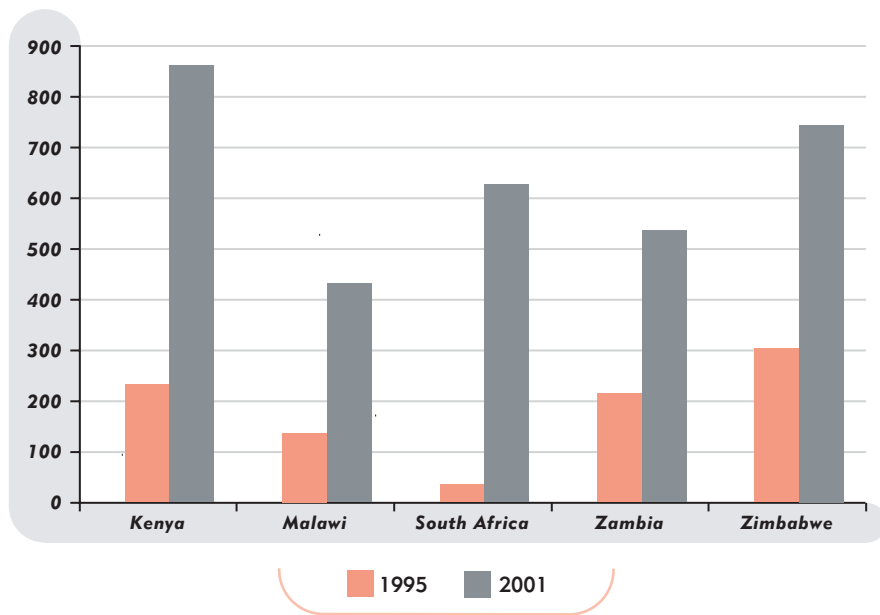
**SOURCE OF DATA:** United Nations (2003)

**Declines in life expectancy at birth** follow from the increases in HIV/AIDS mortality rates. No other demographic indicator so visibly demonstrates the toll on human life that the HIV/AIDS pandemic has brought about, as **Figure 3.1** illustrates for Kenya, South Africa, Zambia and Zimbabwe. In each of these four countries, life expectancy at birth was markedly lower in year 2000 than a decade earlier, with the differences ranging from almost 20 years lower in Zimbabwe to 8 years lower in South Africa. Further declines are expected in the years ahead. So far, the drop in life expectancy for females has been much the same as that for males. However, with the impact of the pandemic becoming increasingly

greater for women, it is to be expected that they will experience a correspondingly more marked decline in life expectancy at birth.

**Gender differentials for HIV/AIDS** tend to reflect the progress of the pandemic. In lower prevalence situations, young men usually have higher infection rates than young women; as the pandemic progresses, an increasing number of women are infected. Females have higher infection rates at an earlier age than males for a combination of socio-economic factors (gender discrimination in schooling, job access and wage rates, greater difficulty in accessing preventative and curative health care) and biological reasons (susceptibility to vaginal infections and abrasions at a young age). The fact that older men have sexual intercourse with younger women also contributes to gender differentials.

**FIGURE 3.2:** Number (000's) of Children Orphaned by HIV/AIDS, 1995 and 2001

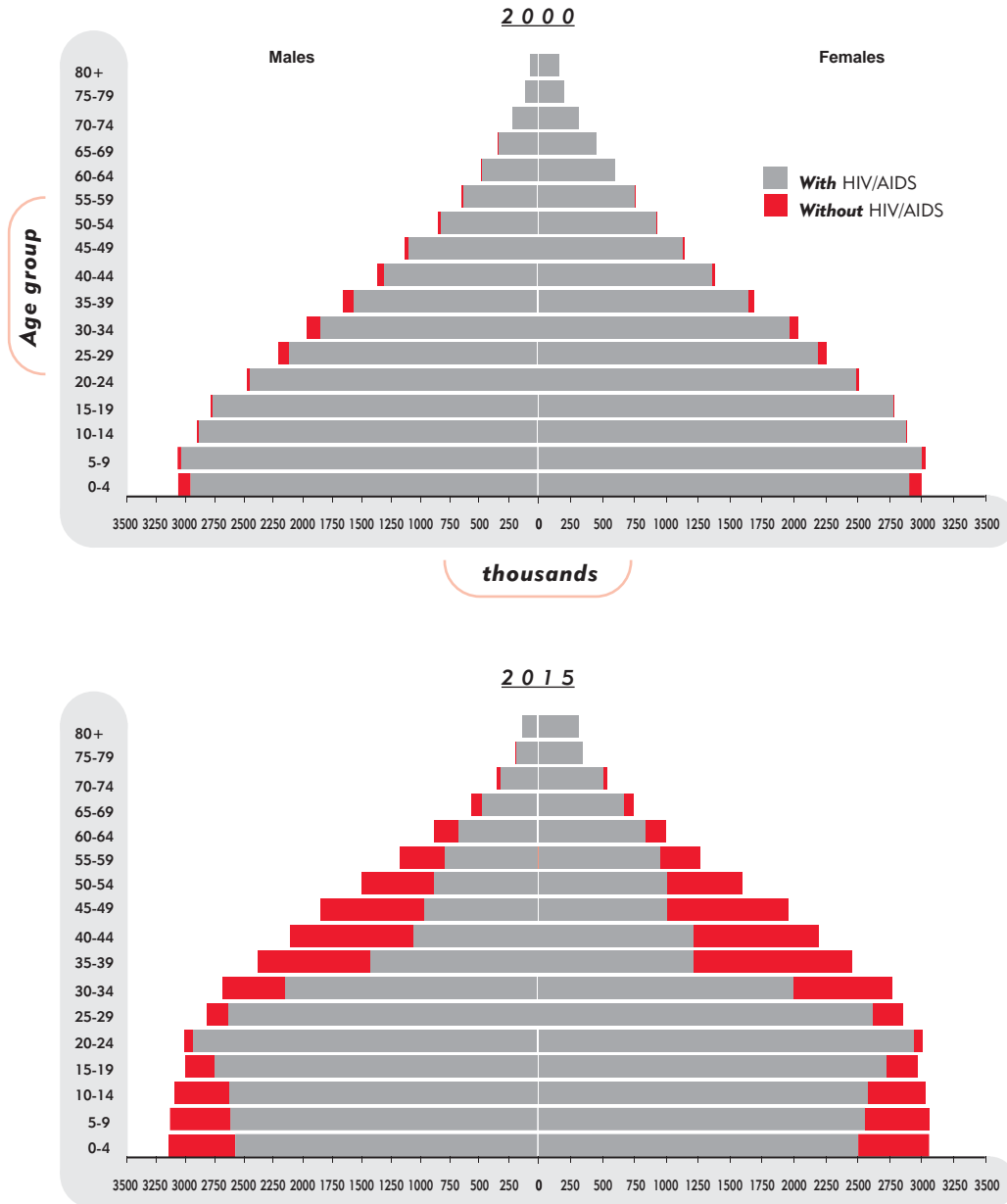


**SOURCE:** Children on the Brink, 2002

**Hundreds of thousands of children are orphaned** as young and middle-aged adults die of HIV/AIDS. This situation is most evident in southern and eastern Africa (**Figure 3.2**) but can be found wherever HIV/AIDS is present.



**FIGURE 3.3:** Population by age and sex in Southern Africa\* with and without HIV/AIDS, 2000 and 2015

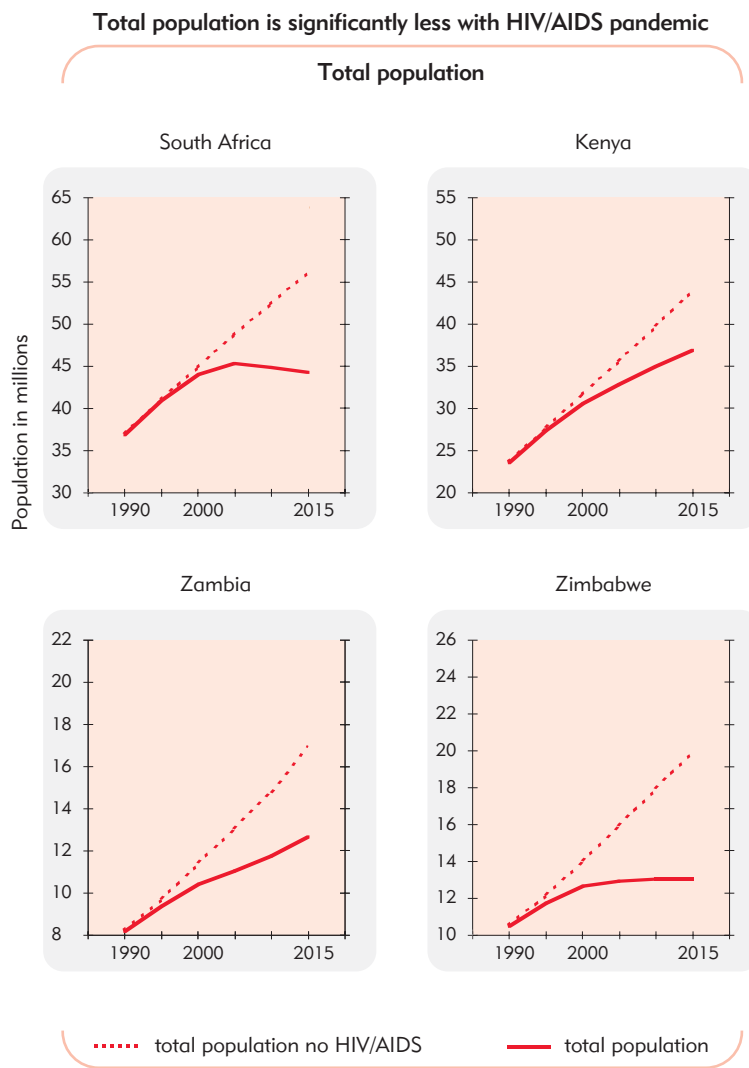


SOURCE OF DATA: United Nations (2003)

\*Botswana, Lesotho, Namibia, South Africa, Swaziland

As of 2001, an estimated 1.8 million children in south and south east Asia had been orphaned by the death of one or both parents due to HIV/AIDS. In sub-Saharan Africa, the number was around 11 million and is expected to climb to 20 million by 2010. By 2010 in Zambia, Swaziland, and Namibia, the orphan-status of 75 percent of all orphans will be attributable to the deaths of their parents from AIDS (USAID, UNICEF and

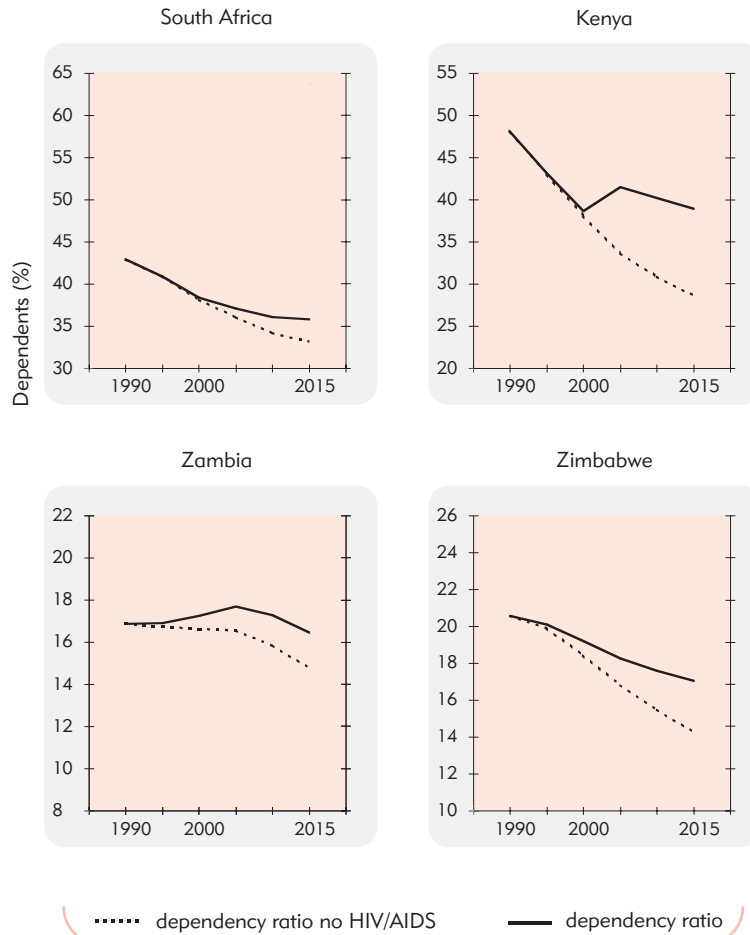
**FIGURE 3.4:** Reverse Demographic Transition?



UNAIDS, 2002). Although the absolute numbers are important, perhaps even more significant is the speed at which the numbers are increasing, indicating the mushrooming pressures on households, communities, government services and civil society to address the needs of orphaned children. One consequence of these circumstances, older adults have been obliged to assume the greater responsibility and burden of care giving both for their sick children and for their grandchildren.

Dependency ratios are higher with HIV/AIDS pandemic

Dependency ratio: persons aged <15 and >64 to those aged 15-64



SOURCE OF DATA: United Nations (2003)

*Population growth slows as HIV/AIDS mortality increases and in the most affected countries will eventually lead to negative growth rates.* For example, in Botswana, the country where the HIV/AIDS prevalence is highest, the average annual population growth rate fell 3.3 per year in 1980/5 to 2.1 percent in 1995/2000, and will drop to -0.4 percent in 2005/10 (United Nations, 2003).

The impact of HIV/AIDS mortality has a cumulative effect on the population's age composition as is shown in **Figure 3.3**. The distortions caused by population losses became increasingly more conspicuous with the passage of time, and for the southern African countries shown, they are more marked for women than for men, especially in the later age groups.

The actual and projected differences in total population size with and without AIDS mortality is shown in **Figure 3.4**. Differences are considerable. For example, South Africa's population is projected to grow from 44 million in 2000 to 44.3 million in 2015. But without AIDS deaths, this would have been 56 million, an expected population loss of almost 12 million persons.

AIDS mortality tends to increase dependency ratios, that is the share of children and older persons in relation to persons of working ages, as shown in **Figure 3.4**. This is, of course, because mortality is significantly higher among the younger cohorts of the working age population than it is among the child population. The dependency burden is exacerbated by the high HIV morbidity levels prevailing among those of younger working ages.

### Impact of HIV/AIDS on Health and Health Services

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As already noted, HIV has a long incubation period, ranging from 5-10 years. The health of an individual influences the length of the incubation period. Immune systems already compromised by poor nutrition or other diseases may succumb to HIV more quickly than healthy immune systems, leading to an earlier onset of AIDS or AIDS-related illnesses. Tuberculosis, pneumonia and cryptococcal meningitis are the most commonly occurring opportunistic infections related to HIV/AIDS. AIDS-related illnesses generally appear about one year prior to a person dying so that there is a long period of increasing ill health.

A number of studies have documented the burden of HIV/AIDS on health services. Hospital services increasingly are devoted to care of peo-

ple with HIV/AIDS and related opportunistic infections. In Burkina Faso, 50 percent of hospital beds are reportedly occupied by people with AIDS or related complications (UNDP, 2001). In some other countries, 70 to 80 percent of hospital beds are occupied by people with AIDS. This puts immense strain on hospitals attempting to cater to the needs of patients with other illnesses. Access to health services partly depends on a person's wealth and wealthier people are more likely to utilise private sector services than lower income people. However, even lower income people use some private sector services – whether in the form of traditional healers, physicians, or drug supplies – for as long as possible. In Botswana, it was found that people “rely on public sector services once they can no longer afford private care” (ABT Associates, 1999).

Health personnel are not immune to HIV infection. In Lusaka, Zambia, in 1991-1992, HIV prevalence was 32 percent among midwives and 44 percent among nurses. Lengthy periods of absence from work due to illness affected the functioning of the health system even before the nurses and midwives died. A hospital in KwaZulu-Natal Province, South Africa, reported staff mortality rates of about 2 percent per annum in 1997-1998. In Botswana, projections indicate that about 3.5 percent of health workers were likely to die of AIDS in 2005, an increase from 1.5 percent in 1999. Obviously, these percentages accumulate with the passage of time. As Botswana loses its health staff, the pressure to recruit externally will increase, as will costs (Barnett and Whiteside, 2002a; Loewenson and Whiteside, 1997; Wilkinson, 1998; ABT Associates, 1999). Thus, the ability of health facilities and health systems to treat and care for people with HIV/AIDS – not to mention clients with other conditions – is being severely compromised.

### **The Impact of HIV/AIDS on Education**

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The impact of HIV/AIDS on the education sector is one of the more comprehensively studied areas. HIV/AIDS is affecting, and will continue to affect, both the demand for education and its supply, including the quality of the teaching service.

On the demand side, fewer children than in the past are surviving to school age because they are born with, or become infected with, HIV at an early age. Children from families where one or more adults are HIV-infected are more likely than children in non-affected households to be withdrawn from school because families cannot afford the school costs,

need the children to help supplement household income, or need them to help care for sick relatives (Kelly, 2000). These trends are especially evident in countries with high HIV/AIDS rates. In Swaziland by 2016, a 30 percent reduction has been projected in the size of primary school population for each grade (Barnett and Whiteside, 2002a). In Zambia, rural orphaned children have a 20 percent higher rate of non-school attendance than non-orphaned children (Kelly, 2000). In western Kenya, 20 percent of households with orphaned children “do not have children in school,” primarily because of lack of money (Ayieko, 1997). In Guatemala, more than one-third of children orphaned by HIV/AIDS drop out of school (Loewenson and Whiteside, 2001).

As the pandemic spreads and its impact becomes more intense, households cope in one of several ways: by delaying school entry, withdrawing girls first, sending children sporadically, or fully withdrawing children from school. The socio-economic status of affected households also has a significant bearing on school attendance. Based on a longitudinal study in the Kagera region of Tanzania, 1991-1994, the researchers concluded: “...the most disadvantaged group is orphans in poor households. Household wealth raises the enrollment rate of orphans, though their enrollment is still lower than that of non-orphans. Orphans in non-poor households have higher enrollment rates than non-orphans in poor households” (Ainsworth, Beegle and Koda, 2002; Ainsworth and Filmer, 2002).

HIV/AIDS affects the supply of education “because of:

- the loss through mortality of trained teachers;
- the reduced productivity of sick teachers;
- the reduction in the system’s ability to match supply with demand because of the loss, through mortality or sickness, of education officers, inspectors, finance officers, building officers, planning officers [and] management personnel;
- the closure of classes or schools because of population decline in catchment areas and the consequent decline in enrolments” (Kelly, 2000).

The loss of teaching staff as well as administrators and supervisors is overwhelming. In the province of Nyanza in Kenya, as many as 20 to 30

teachers reportedly die each month from AIDS. In Botswana, death rates among primary school teachers increased from 0.7 per 1,000 in 1994 to 7.1 per 1,000 in 1999 (Gachuhi, 1999; Loewenson and Whiteside, 2001).

Learning time is lost, classes are combined, and the quality of teaching and learning decreases. Teacher morale is affected by the loss of colleagues and the stress of working under increasingly demanding conditions. Children affected by HIV/AIDS bring their worries and fears to school, creating a new dimension of responsibility for teachers and administrators. Some school systems, such as in Tanzania, are training teachers to provide counselling services.

The implications for development are numerous. Children lose key opportunities for creating a more secure economic future for themselves and their families. In search of economic opportunity, young people migrate to urban areas, adding to the problem of unemployed youth. Among mobile young adults exposure to HIV/AIDS prevention education is likely to be minimized. The stigma and discrimination of being both “uneducated” and from a family affected by HIV/AIDS has long-term psychological implications. Hope, too, is lost. A study from South Africa on sexual and social attitudes among children 12-17 years of age argues: “Young people who are poor, yet have a sense of optimism, engage in less risky sexual behaviour. Young people who are poor and feel trapped in a poverty spiral feel pessimistic. Their response to HIV is that it is something that is almost inevitable. This attitude correlates strongly with risky sexual behaviour” (Valentine, 2002).

### **The Impact of HIV/AIDS on Food Production and Nutrition**

There is a growing body of evidence that HIV/AIDS results in changes in crop production and household nutrition. As with decisions about education, farming households face a series of options about how to cope with HIV/AIDS. The most significant impact on farming households is the loss of the labour of one or more productive members. Even if only one person is sick with AIDS-related illnesses, it is common that family members have to provide intensive care for weeks or months, with the result that a significant proportion of productive household labour is lost. Case-studies in Tanzania and Zambia have estimated that households lose the equivalent of about two years of labour by the time of death and households with a chronically ill member have average reductions in annual income of 30 to 35 percent (Rugalema, 1998; Webb and Mutangadura, 1999).

Among the survival options for households are:

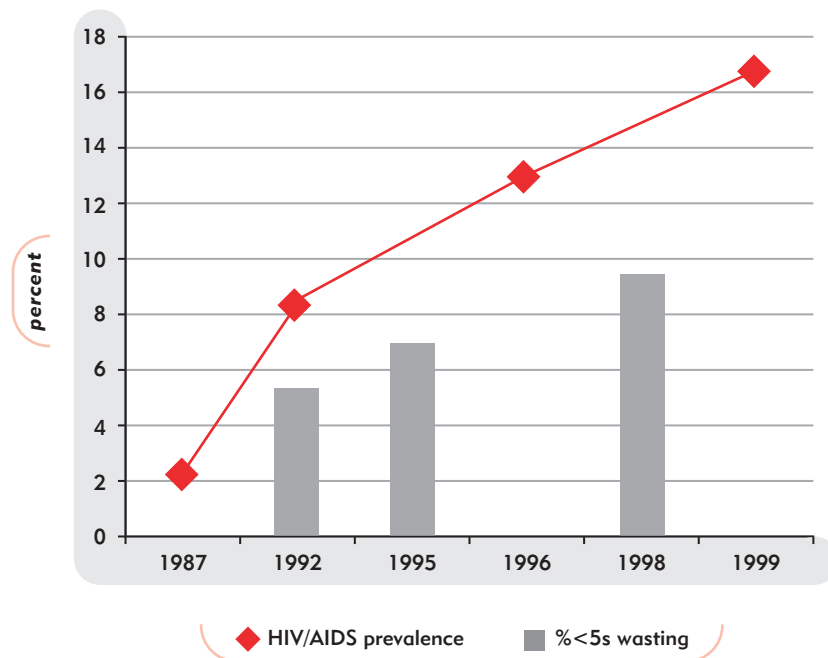
- **Shift to less labour-intensive crops** A study in Sanpatony District, Thailand, found households growing smaller amounts of labour-demanding crops like rice and chilli, preferring to cultivate less labour-intensive crops like soya and onions. The study also found a reduction in acres of wet rice, from 1,237 to 876 hectares, half of the change being due to the impact of HIV/AIDS (Thangpet, 2001). In Uganda in the late 1980s, households affected by HIV/AIDS reduced work on coffee in favour of their staple, bananas. As labour became even more scarce, they abandoned bananas, cut down trees and planted cassava (Barnett and Whiteside, 2002a).
- **Put less labour into the farm** In Ethiopia, labour losses reduced the time spent on agriculture from 33.6 hours/week for non-AIDS affected households to between 11.6 and 16.4 hours for AIDS-affected households (Bollinger, Stover and Seyoum, 1999). A study of a farming region of southern Zambia found that “women were forced to abandon their planting or harvest because all their time went into care giving. When they tried to work extra hours to make up for lost time, many decided to reduce their cultivation. In other cases during harvesting, women had no time to collect their crops. They had no choice but to abandon them” (Waller, 1998).
- **Rent, mortgage or sell the land** There is anecdotal evidence of people adopting these measures but in-depth studies have yet to be carried out. It seems that renting or leasing land is much preferred to outright sales. Ayieko notes how the vulnerability of ill patients is exploited in some instances in Kenya: “During the terminal stages of the illness, many households sell off land to raise money for hospital bills and medication. Some hospitals and clinics also encourage terminally ill patients to surrender land title deeds as security for medical bills. This happens with full knowledge of the medical personnel that the patients will not recover enough to claim back the documents” (Ayieko, 1997).



- **Switch in gender roles in agriculture** In southern Zambia, some men began weeding fields, a role normally done by women. Elsewhere in sub-Saharan Africa, women have begun caring for livestock, a role normally assumed by adolescents and men (Waller, 1998).

Although there has been little research on the modifications in either child or adult nutritional status as a result of either changing land use or income reduction, a comparison of adult HIV/AIDS infection rates and child malnutrition in Malawi suggests that a pattern of child malnutrition follows the rise in HIV prevalence (Figure 3.5). Factors likely to contribute to child malnutrition in households affected by HIV/AIDS include significant shifts in household spending away from food purchases towards medical care.

**FIGURE 3.5:** Adult HIV Rates and Child Malnutrition in Malawi, 1989 to 1999

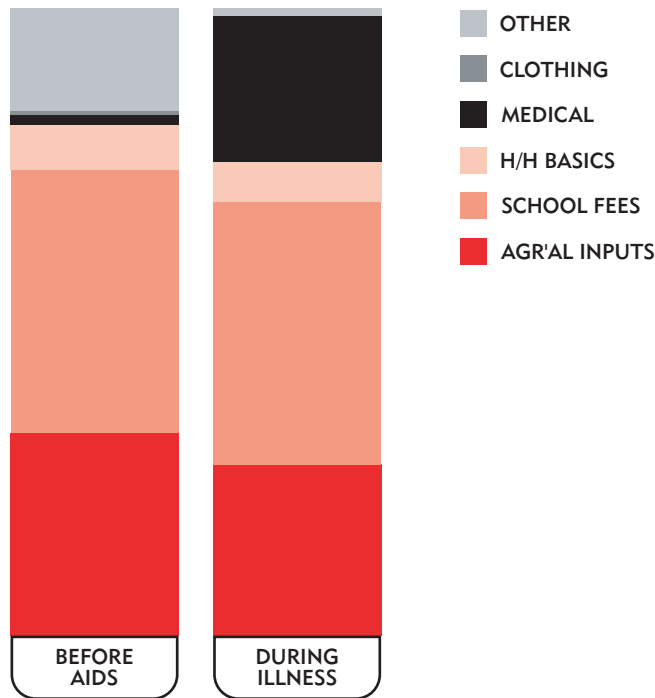


**SOURCE:** WHO (2000), DHS (1992), NACP (1999)

### The Impact of HIV/AIDS on Income and Expenditure

HIV/AIDS results in significant changes to family and household income and expenses. Upon medical retirement or death, people who have had wage employment will no longer contribute a steady income. Medical leave, retirement and death benefits may cushion the loss of regular income for several months, but eventually families and households face a decline in income. People working in the informal economy, without benefits, experience income losses during periods of illness. With full retirement from work or with death, the household completely loses that source of income. A study in Thailand in the early 1990s, found that household income from regular work declined on average by about 83

**FIGURE 3.6:** Wealthier Household Expenses Before and During AIDS-Related Illness: Makueni, Kenya



SOURCE: Famine Early Warning Systems Network (FEWS), 2002

percent when a wage earner became ill and stopped work (Pitayanon, Kongsin and Janjareon, 1994). Low-income households and those with the least education were the most severely affected.

Income loss has a long-term impact on households. The loss of income is compounded by loss of savings, sale of assets, and for some households, new debts, all the result of the need to pay for medical care and simultaneously continue to cover ordinary expenses. The Kagera study in Tanzania, cited earlier, found that two to three years after the death of an income earner, the household continued to struggle to regain its former level of income and security. For female-headed, child-headed and elderly-lead households recovering takes even longer, if it occurs at all. Barnett and Whiteside point to the dissolution of households after the death of one or both of the main income earners. Such households often do not show up in surveys of impact.

Certain household expenses increase when a person falls sick with AIDS-related illnesses. The Kagera study found that, in general, households spent less during a person's illness, but spent a greater percentage on medical care. Spending on clothing, soap, batteries, other non-food items and food fell by one-third from prior levels (World Bank, 1997). In Thailand, over half of the affected households in one survey reduced expenditure by over 40 percent but 60 percent of households drained their savings to pay for medical care. Nearly 20 percent of households sold assets, including land, vehicles, jewellery and livestock. Over 10 percent of households borrowed money (Pitayanon, Kongsin and Janjareon, 1994). **Figure 3.6** illustrates changes in spending by wealthier households in a rural region of Kenya due to AIDS-related illness in the family.

Funerals are another major expense. In Kagera, Tanzania, households spent nearly 50 percent more on funerals than they had on medical care. Attendance at funerals has become both commonplace and disruptive to both business operations and small-scale farmers and merchants (Barnett and Whiteside, 2002a).

### Impact of HIV/AIDS on Poverty and Inequalities

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Almost all analysts that have looked at the impact of HIV/AIDS on households note the increase in poverty. Namposya-Serpell in her study in Zambia, encapsulates the situation: "One of the striking features of the economic impact of AIDS in affected families in Zambia is the rapid

transition from relative wealth to relative poverty” (Namposya-Serpell, 2000). For poorer and rural households, the ability to cope with external shocks, such as drought or increases in the prices of staple products, are reduced further (Kürschner, 2002).

Not surprisingly, the loss of income and increased medical expenses hit smaller and lower income households hardest. Larger households are less likely than smaller households to become poor as a result of HIV/AIDS, being better able to distribute the impacts across family members. Based on a field study in southern Zambia, Waller found that more people became impoverished or, for those people embedded in poverty, their distress intensified. “The poorest households with no or a few head of cattle are unable to buy a coffin and rely on kin support networks to help feed the mourners. Female-headed households had the greatest difficulties. They lacked the kin support and were forced to bury their relatives, usually a son or daughter, in a blanket, and were only able to feed the mourners maize” (Waller, 1998). Simulation modeling in Botswana indicates a fall of 18 percent in “the average income of households in the lowest quartile. This is nearly double the income loss in the population as a whole” (Greener, 2000).

For Botswana and other countries with advanced epidemics, the pandemic narrows the range of opportunities for reducing economic and social inequalities while deepening national poverty. As noted earlier, access to education is already compromised for many children affected by HIV/AIDS. In the health sector, “Access to affordable treatment and adequate health services has become one of the most important differentiating factors between HIV-related survival in rich and poor countries and communities” (Loewenson and Whiteside, 2001). A study in 2001 in the Sangli district, one of the more economically productive districts of the Maharashtra state in India, found that children in households where an adult’s death due to HIV/AIDS had occurred had less access to health care services and to school. To cope with a HIV/AIDS-related death, already poor households were more likely to forego use of health services than non-poor households, with the implication that socio-economic inequalities grew (Verma *et al.*, 2002).

Comparative studies from countries with lower HIV prevalence confirm the harsh impact of an adult death on surviving family members. A study in Bangladesh identified numerous consequences of an adult death: women having to take a job at the expense of childcare; a higher

likelihood that children would not receive any education than children in households without an adult death; a likelihood that female children would move out of the household for work or marriage; and greater child mortality following the death of a mother (Roy, 2000).

Gender inequalities, too, are often reinforced. Women may have to give up jobs and income earning to care for a sick spouse or relative. The burden of caregiving falls primarily on women and that burden carries over into dealing with the possible loss of assets to relatives upon the death of a husband. Girls tend to be withdrawn from school earlier than, or rather than, boys to assist with caregiving, household chores and family income support. There are widespread anecdotal reports of men seeking ever-younger girls for sexual purposes, including under 12 year olds, on the assumption that these girls are not HIV-infected or that the man will be cured of his infection.

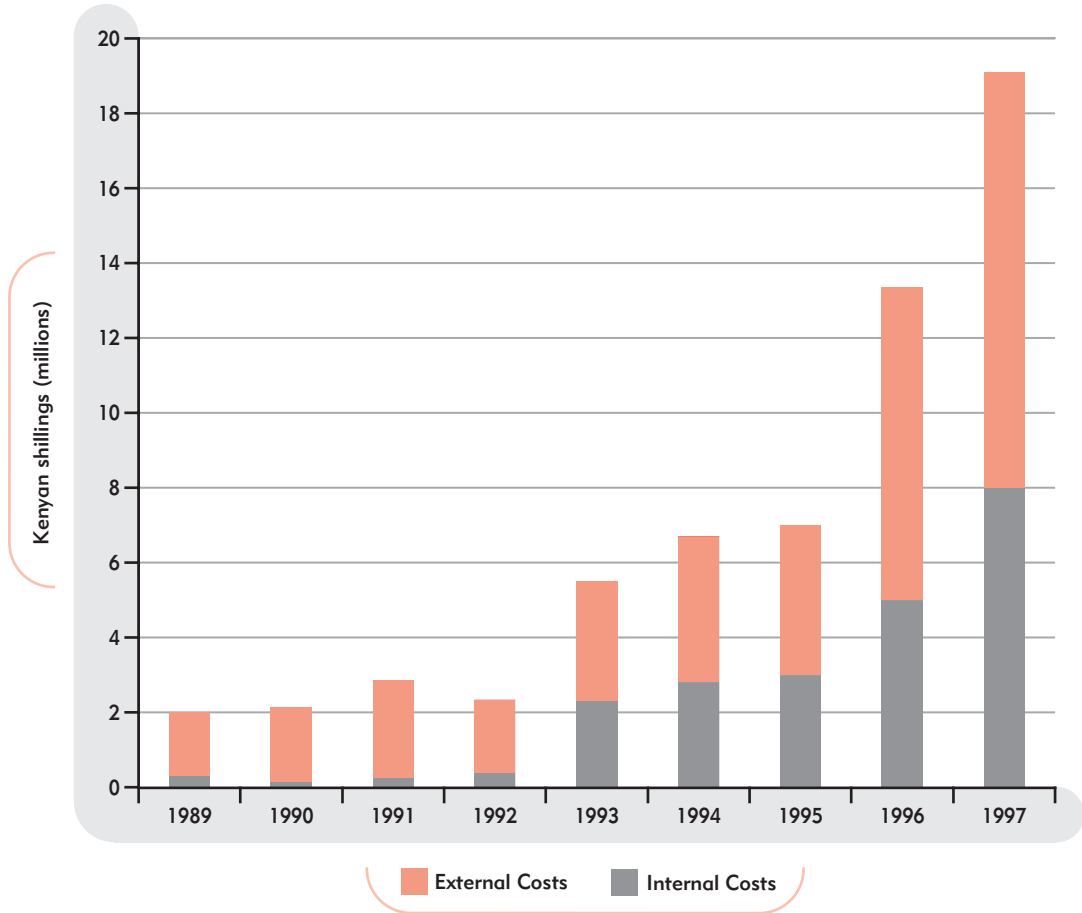
### **The Impact of HIV/AIDS on Businesses and Labour**

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Beginning with the early stages of the pandemic, large businesses have tended to ignore or to absorb the impact of HIV/AIDS on company costs. However, the rising number of sick and dying employees is putting increased pressure on private sector productivity and profitability. HIV/AIDS affects companies in several ways.

- HIV/AIDS prevalence in the workplace results in decreased productivity due to:
  - increased absenteeism due to illness, caring for others, and funeral attendance;
  - declining morale;
  - loss of technical skills and experiential knowledge; and
  - increased staff turnover.
  
- HIV/AIDS prevalence among workers affects the costs of doing business by:
  - increasing the cost of health, life and safety insurance cover;
  - shortening the accumulation period for retirement funds;
  - increasing the costs of providing medical assistance;
  - increasing the costs of death benefits, including funeral costs; and
  - increasing recruitment, training and re-training costs.

**FIGURE 3.7:** Medical Costs at a Kenyan Agro-Estate, 1989 to 1997



**SOURCE:** G. Rugalema, *et al.*, (1999)

A sugar mill in South Africa with 400 employees reported that the major costs associated with HIV/AIDS were disruptions to the smooth flow of production because of absenteeism of employees and recruitment and training of new workers. On average, employee absenteeism during the two years prior to taking medical retirement was 27 days per year — roughly five working weeks (Morris, Burdge and Cheevers, 2001). A tea estate in Malawi saw a six-fold increase in mortality over five years between the early and mid-1990s. Increases in company expenses fol-

lowed that trend. HIV/AIDS accounted for a quarter of the total company costs in providing medical services and accommodating absenteeism. It accounted for over three-quarters of all company funeral costs and was totally responsible for the costs associated with death-in-service benefits (Jones, 1997). A Kenyan Agro-Estate experienced a dramatic increase in medical costs over the period 1989-1997 (Figure 3.7) and ascribed most of those costs to HIV/AIDS among employees. The costs were divided between care provided by the company clinic (internal costs) and care provided by an outside source (external costs).

Workers in the formal sector are already sharing the costs of HIV/AIDS with their employers. It appears from initial evidence in South Africa that a number of companies are shifting the burden of impact from themselves to their employees and the public sector. A survey conducted in 1999, found that over three-quarters of large employers had reduced health benefits and/or increased employee contributions. In addition, most firms had changed their retirement plans, replacing defined-benefit retirement funds (which have greater long-term costs to companies) with defined contribution funds (which greatly reduce the risk to firms and provide limited benefits to families of younger workers). Other ways of shifting the burden was by out-sourcing work that had previously been done by permanent employees and adding new technologies that displace some labour (Simon and Rosen, 2002).

The outlook for longer-term impacts for both businesses and workers remain complex. The supply of skilled workers is virtually certain to decline. Analysis by the International Labour Organization (ILO) suggests that the labour supply in Zimbabwe will be about 17.5 percent smaller in 2015, as a result of HIV/AIDS (Sehgal, 1999).

### Impact of HIV/AIDS on the Public Services

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Outside of the health and education sectors, little attention has been given to the impact of HIV/AIDS on the public service workforce and the ability of government ministries and departments to function efficiently. It is commonly assumed that HIV infection rates among civil servants are similar to that of the wider population, but this has not been confirmed. Though many civil servants have the same risk factors as non-government workers, they may have greater access than the general population to health services for treatment of STIs, to condoms, and other preventive information, and to employment benefits.

A national security report produced by the United States warned that a severe epidemic in Russia would put further strain on the country's military and "sharpen military manpower shortages" (US National Intelligence Council, 2002). A similar prediction was made for Ethiopia's army. In 1995, 21 percent of Cambodian soldiers from one of the country's northwestern provinces were found to be HIV-positive. Several African defense ministers reported in the mid-1990s, that HIV prevalence rates in their forces were double or more than in the civilian population (Yeager, 2000). The implication for development is that a significant loss of trained and disciplined soldiers may become a basis for national instability and conflict.

The absence of staff due to ill health and the non-replacement of staff who retire or die, leaves gaps in the functioning of ministries and departments. A survey in Malawi's Ministry of Agriculture and Irrigation found a quarter to a half of all technical and professional positions vacant in 1996 and in almost all categories the vacancy rate increased by 2000 (Malawi Institute of Management, 2002). To be sure, not all of these vacancies can be explained by HIV/AIDS (low salaries and disruptions in pay encourage some employees to seek work elsewhere), but rising death rates among Ministry staff are the most significant cause of new vacancies.

### The Impact of HIV/AIDS on National Economies

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Some of the earliest impact studies focused on changes in gross national /domestic product (GNP/GDP). They found little impact. More recent studies in countries in southern Africa where HIV prevalence is high, show that the pandemic will have a cumulative impact at these levels. AIDS may reduce *per capita* annual economic growth by 1 to 2 percent in hard hit African countries (Loewenson and Whiteside, 2001). In Papua New Guinea, a modelling projection with a medium impact scenario indicated a 6.8 percent decline in GDP above a non-AIDS scenario over the period 2000-2020. The same modelling projected a rise in per worker GDP, as a result of a projected 36 percent fall in the labour force (Centre for International Economics, 2002). In the Caribbean region, one study estimated that GDP in Jamaica might decline by 6.4 percent and in Trinidad/Tobago by 4.2 percent by 2005. The size of such a loss is notable: "HIV/AIDS alone will cause a decline in output that is almost equal to what countries now spend on all their health needs in both the public and private health sectors" (Theodore and La Foucade, 2001).



Even with modest levels of care, the pandemic will be costly for sub-Saharan African countries. While economies may decrease in size, the pressures on national spending will increase as a result of HIV/AIDS as national revenues fall. According to one analyst, in severely affected countries, “reduced economic performance will probably decrease tax income more than 20 per cent in the next 10 years” (Kürschner, 2002; Haacker, 2002). The pressures on national economies are already evident. In 1995, HIV/AIDS accounted for 27 percent of public health care spending in Zimbabwe and 66 percent in Rwanda (Barnett and Whiteside, 2002a). Annual direct medical cost of AIDS (excluding anti-retroviral therapy) was estimated at \$30 *per capita*, at a time when public health spending is less than \$10 *per capita* in most African countries (Loewenson and Whiteside, 2001). Now, with the potential for providing antiretroviral drugs, annual direct medical costs (including improvements in health services infrastructure) are considerably higher.

Training and replacing workers lost from the public sector will be expensive. Few countries have begun planning for the process of replacing workers or managing the costs. In middle-income countries, governments will be expected to cushion the impact of HIV/AIDS on households with grants or school subsidies for orphaned children. Businesses may expect tax breaks to offset losses they face due to HIV/AIDS. Thus, the competition for limited public resources will intensify.

Pressures on national economies will affect countries’ ability to address poverty and development issues and meet debt repayment schedules. A study in Honduras, where HIV prevalence rates are relatively low, concludes... “economic growth projections... fall short of the economic growth rates required for the viability of the debt reduction initiative”. Even if external aid and investment were sustained at 2002 levels of 10 percent of GDP, “capital accumulation still would only be able to restore depreciated stocks” (Cuesta, 2001).

### **Impact of HIV/AIDS and Responses by Community Organizations**

Households and the communities in which their members live have faced the greatest impact of HIV/AIDS. They have also been in the forefront of responding to the needs of neighbours and the larger community. Development impact assessments are therefore excellent methods for identifying emerging and established local groups. A number of these community-based responses offer models for the design of prevention and mitigation programmes.

Community mobilization is most notable for assisting orphaned children, for helping families sustain themselves while caring for someone ill with AIDS, and for supporting women who are ill or widowed as a result of HIV/AIDS. Most of these follow long-established patterns of local support, but others have been facilitated by external organizations. What is evident from the numerous local responses is the willingness of communities to apply their skills and resources to local needs, to engage in problem analysis and problem-solving, and to build upon local structures (Silomba, 2000; Foster, 2001; Rau, 2002a).

In Tanzania, for example, village organizations have adopted rules and regulations designed to protect schoolgirls from sexual harassment and exploitation. In several eastern African countries, savings clubs have been adapted to assist members to pay medical expenses. All are relatively small, often beyond the view of national-level authorities and outsiders, but reflective of the dynamic initiatives at local levels. What is less evident are the links with regional and national mechanisms that can provide support and learn from local initiatives, but activism in Thailand has helped local organizations to access government grants (Im-em and Suwannarat, 2001).

### **More Effective Intervention for Prevention, Mitigation and Advocacy** ---

HIV/AIDS is having a significant impact on development indicators and processes in many countries. In the absence of effective prevention initiatives, the potential exists for the impact to become deeper and more extensive in countries just beginning to see signs of the disease. Factors long considered key to effective development, such as schooling for both girls and boys, adequate health care services for everyone, or a robust agricultural sector, are being undermined by HIV/AIDS, especially where the epidemics are most extensive.

The epidemic follows prevailing fractures in society. Those fractures include gender and class inequalities, inadequate social services and widespread joblessness among young people. The epidemic not only exploits these conditions to increase individual susceptibility to HIV/AIDS, but makes effective prevention interventions more difficult to design and implement.

One reason that HIV/AIDS is having such a devastating impact on development is the narrow focus on individual behaviour change of many prevention interventions. Some prevention efforts have included ele-

ments to address inequalities in gender relations, but these remain limited in scope. Most other components of what is considered development have not been incorporated into prevention interventions, or community-led responses have been marginalized during programme design (Geoff Foster, personal communication, 2003).

To date, most HIV/AIDS impact assessments have focused on demographic and macroeconomic changes. There remains a pressing need for more studies, small and large, that focus on changes occurring in social conditions, social services and specific population groups. Where development-oriented impact assessments have occurred, they have generated some important information on the effects of the epidemics on key development indicators. For example, tens of thousands of children have been orphaned. A good number of these children have left school and too many are living in difficult conditions, their opportunities and well being for the future severely compromised. Many of these children have had to work, potentially exposing them to sexual exploitation and harassment, and HIV infection. With such information in hand, it would be more feasible to plan interventions to keep orphaned children in school, build community support networks and strengthen legal protection both for the children and for their guardians.

Impact assessments have the added value of providing information to sensitise and mobilize leaders and public opinion makers to adopt stronger prevention and new mitigation actions. The findings from HIV/AIDS impact assessments are regularly used in advocacy with political leaders who are responsible for shaping national policies. In other instances, business leaders have been presented with impact assessment findings that demonstrate how profits and productivity will be affected by an HIV/AIDS-infected workforce. To date, such advocacy has not been as effective as lobbying groups had hoped, in part because of the denial by leaders that HIV/AIDS is of concern to them, their organizations or their countries. Also, advocacy has had limited impact because practical recommendations for implementation are not built into presentations of the findings. As multisectoral responses to the pandemic become more accepted, the findings from HIV/AIDS development impact assessments will be important tools in providing the evidence to make broad-based advocacy increasingly powerful for prevention, care and mitigation programmes and policies.



**Identifying the Purpose**

A development-oriented impact assessment can take a variety of forms: it can be sector-specific or multisectoral; it can be specific to a population group or a locale; or it can encompass several population groups or geographic areas. The precise focus depends on the level of information desired, the likelihood of obtaining that information in a timely and cost-effective way, and how the findings will be used. Findings to be used in advocacy with a cross-section of government policymakers to draw attention to the current and potential impact of HIV/AIDS, are likely to be drawn from assessments that are broad in nature, with perhaps some additional in-depth findings from key sectors, or a focus on other high level concerns (such as food security or trade and investment). Findings suitable for use in sectoral planning need to focus on that sector and related sectors; for example, plans to retrain agricultural officers to deal with the impact of HIV/AIDS will build on impact assessments that focus on the rural economy and living conditions.

This chapter provides information on some of the mechanisms for putting together an assessment for understanding the impact of HIV/AIDS on one or more components of development. The most important element of an effective impact assessment is the questions being asked. Thus, at the core of the chapter are a set of key questions, markers and indicators that can be used in designing an impact assessment.

## Constructing HIV/AIDS Impact Indicators

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Identifying appropriate indicators for assessing the impact of HIV/AIDS on development sectors requires a combination of precision and flexibility. The precision comes in knowing what findings are required and what data is available. Flexibility is needed as numerous assumptions must be made about the reliability of available data, about data collection methods and about the expectations of the findings from the assessment.

Indicators can be developed for “inputs” to HIV/AIDS prevention and mitigation, such as levels of government spending on health or education or on the efficiency of service delivery. Or, indicators can be in the form of “outputs” arising from the impact of HIV/AIDS, such as levels and changes in school attendance or the number of orphaned children. Here, we emphasize the importance of tracking trends, rather than time-specific snapshots, in situations relating to the impact of HIV/AIDS. As noted in Chapter Two, development is an outcome of a multiplicity of processes. Consequently, to understand the impact of HIV/AIDS on development, an assessment must incorporate markers about changes occurring in society and their underlying causes.

Disaggregating indicators by income/consumption level (by quintile, for example) provides insights into differences among socio-economic groups, another key aspect of development analyses. Demographic and Health Surveys (DHSs) have been used in this way, and some of the national surveys now include questions about HIV/AIDS awareness, although not socio-economic impacts.<sup>3</sup>

Where data are lacking or are very dated (as is often the case with data relating to poverty status or inequalities), building related HIV/AIDS impact indicators may not be feasible. In these cases, indirect or proxy indicators can offer insights into changes related to the impact of HIV/AIDS. One such indirect indicator for assessing shifts in poverty conditions is observed or measured changes in asset ownership. Where data are more current, such as the administrative records of school attendance or number of teachers actually in the classroom, trends can be monitored directly. These data can be supplemented with focused surveys to determine girl/boy ratios among attendees and dropouts.

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<sup>3</sup> Macro International, which manages the demographic and health surveys, notes that new indicators to assess the socio-economic impact of HIV/AIDS largely remain to be constructed.  
<http://www.measuredhs.com/hivdata>

Criteria for including an indicator within an assessment of the impact of HIV/AIDS include determining:

- the real or assumed relevance of the existing and potential data to underlying causes and/or consequences of HIV/AIDS;
- the real or assumed availability of data through timely, cost-effective and efficient inquiry;
- whether the data relate to an input (resources that go into functioning of a system), a condition (elements and processes in the wider environment, such as opportunities to respond to prevention messages), or an outcome (a result of inputs). There is an obvious overlap in the three categories, and the use of findings will cross over between the categories. An initial categorization, however, will assist in determining the focus of specific indicators; and
- the availability of baseline or comparative data permitting an assessment of changes over time.

### Indicators/Markers for Use in HIV/AIDS Impact Assessments

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The tabulated material in this chapter provides a number of initial quantitative and qualitative indicators and markers for use in assessing HIV/AIDS impact in specific sectors. The format follows the headings used in Chapter Three, with a couple of additions. The indicators, markers and questions suggested here are not exhaustive but should be useful in initial discussions about the design of an impact assessment. In the designing of an actual impact assessment, other locally relevant and specific indicators can be added. Data derived from the indicators can be used in conjunction with the other data sources elaborated on in Chapter Six.

The indicators that follow are for assessing or monitoring socio-economic *changes* typically arising from the presence of HIV/AIDS. Some pertain to households or local communities; others to specific sectors and national conditions. The indicators are not intended as a means to assess the susceptibility (or conditions of risk) of individuals or groups to HIV infection. There may be impact indicators that can be used in the context of assessing risk, but that is not the primary intention here. The indicators seek to provide data and insights on two questions:

- what socio-economic conditions are changing because of the HIV/AIDS pandemic?
- what do those changes mean for socio-economic development?

Indicators are just signs of a particular situation or condition. Given the dynamic nature of HIV/AIDS and its broad social, economic, cultural and political context, most of the indicators will be influenced by HIV/AIDS as well as by other factors. Some of the changes found, however, may not be directly related to the pandemic. For example, child mortality may increase for reasons other than HIV/AIDS, such as increasing adoption of commercial feeding products, deterioration in health services for the young, or changes in household food security. Child mortality will also increase as more HIV-infected women give birth, but the absolute number of child deaths could decline because HIV diminishes a woman's ability to become pregnant. Analysis of impact findings involves the recognition of the various factors contributing to change.

A short note precedes each set of indicators that provides some context and guidance on the applicability of the indicators. It should be noted that "increase" or "change" are used to inform on what is expected of the indicator but are not part of the indicator statement.



## Demographic Impact of HIV/AIDS

The level of detail for the demographic indicators will be shaped by the expected use and demand for quantitative findings. Anecdotal reports of increases in mortality, out-migration or female-headed households may be sufficient for some audiences, but supporting quantitative data may be desired by planners or sceptical decision-makers. Existing demographic data can provide a baseline from which to examine trends and supplement other forms of information about demographic changes arising from HIV/AIDS.

INDICATOR/MARKER	NOTES
<p>Increase in young adult (18-40) and child (&lt;5) mortality</p> <p>Increase in young female (18-30) morbidity and mortality</p> <p>Change in age/sex structure of population</p>	<p>Differentiate by sex; mortality data, along with HIV/AIDS epidemiological data, can be used to model changes in life expectancy</p>
<p>Increase in number of orphaned children</p>	<p>Use local definitions of orphans, i.e., children who have lost their father, their mother, or both</p> <p>Differentiate by sex; adult mortality data and HIV/AIDS epidemiological data can be used to project the number of orphaned children</p>
<p>Changes in age of marriages, notably for orphaned females</p>	<p>Later marriages may occur, especially in societies with bride prices</p>
<p>Increase in (household) dependency ratio</p>	
<p>Changes in age or gender of household heads</p>	<p>Increases in elderly-headed, female-headed and/or child-headed households are likely to be occurring</p>
<p>Increases in number of households that dissolve and disappear</p>	
<p>Changes in household and/or community out-migration</p>	<p>Can include adults for work, children for fostering and children for work</p>

### Impact of HIV/AIDS on Health and Health Services

Basic epidemiological data for HIV/AIDS and AIDS-related opportunistic infections, such as TB and pneumonia, are important. Similarly, data on health-facility use is needed. If, as is likely, the financial cost to institutions of HIV/AIDS is to be assessed, care and treatment costs in health facilities are useful.

INDICATOR/MARKER	NOTES
Changes in utilization of primary health care (PHC) and hospital services	Relates to impact on delivery of services
Increases in hospital in-patient admissions	Especially for AIDS-related symptoms; differentiate by age and sex
Changes in average length of stay for in-patients Changes in the in-patient death rate Changes in demand for volunteering HIV counselling and testing Changes in the in-patient, out-patient and home-based supported care	
Changes in drug/medication usage	Especially for AIDS-related diseases
Usage of antiretroviral drugs for pregnant women Usage of antiretroviral drugs for people living with HIV/AIDS	Use cost data to help assess impact on budgets of health facilities
Changes in disease patterns	Most notable are increases in AIDS-related disease, such as TB
Changes in workload, working conditions and morale of staff Absentee rates among staff Mortality rates among staff	
Increases in personnel-related costs	Especially costs related to medical retirement, death benefits, hiring and training costs
Policy, regulatory and other responses of the system to changes that are occurring	

### Impact of HIV/AIDS on Education

As in the health sector, a substantial amount of information on the impact of HIV/AIDS can be gathered from data that are regularly collected by schools and education administrators, although there may be a time lag of several months or more. Again, HIV/AIDS might be only one among several reasons for changes in school attendance, but dramatic shifts in attendance within a three to five-year timeframe are likely to be attributable, at least in part, to conditions arising from the impact of HIV/AIDS on families.

INDICATOR/MARKER	NOTES
<p>Changes in school attendance and/or withdrawals</p> <p>Increases in irregular school attendance</p> <p>Changes in student needs for food, school supplies, clothing and/or psychosocial support</p> <p>Changes in girl:boy ratios in primary and secondary schools</p> <p>Changes in workload, working conditions and morale of teachers/administrators/supervisors/teacher trainers</p> <p>Changes in absentee rates among staff, especially teachers</p> <p>Changes in mortality rates among staff</p>	<p>Disaggregate by age (or grade), sex, and locale</p>
<p>Increases in personnel-related costs</p>	<p>Especially, medical retirement, death benefits, hiring and training costs</p>
<p>Loss of public sector teachers to private sector schools</p>	
<p>Policy, regulatory and other responses of the system to changes that are occurring</p>	<p>For example, limitations on absenteeism; increases in teacher training intakes</p>

### Impact of HIV/AIDS on Food Production

There are two different levels of inquiry here: household and community level food production; and regional or national level food security. Both require different sets of indicators, but the findings can be merged in some instances. As in other sectors, changes in agriculture may be related to factors other than HIV/AIDS and needs to be acknowledged, if not firmly identified. At the same time, the impact of HIV/AIDS can exacerbate changes that are occurring for other reasons, such as increases in out-migration in search of work to meet household cash needs. Also, community responses to increased deprivation or hardship of families will differ by society. However, it is important to assess the willingness and ability of communities to assist neighbours.

INDICATOR/MARKER	NOTES
<p><b>Shifts in crop mix, including to less labour-intensive crops, from cash to food crops</b></p> <p>Crops, livestock and land being less well cared for</p> <p>Changes in amount of land worked (increased fallow) or number of livestock kept</p>	<p>Many of these changes can, in the first instance, be observed and reported (by extension staff, for example), before mounting an in-depth assessment</p>
<p>Increases in renting, mortgaging or selling of land</p> <p>Increases in sale of farm and household equipment</p>	
<p>Changes in gender roles in agriculture</p> <p>Changes in agricultural workload of women and/or children</p>	
<p>Visible decline in best farming practice</p>	<p>Especially as less labour is applied to crops</p>
<p>Changes in crop yields</p>	
<p>Changes in marketed agricultural products, including livestock</p>	<p>Smaller sales may become more common</p>
<p>Changes in household incomes derived from agricultural production and sales</p>	

Changes in number of people working for other farmers (off-own-farm work)	Especially important to disaggregate by sex and age
Changes in wages for off-own-farm work Increases in out-migration Changes in levels and patterns of credit Increases in informal borrowing  Changes in absentee rates among extension staff Increases in staff mortality	
Increases in personnel-related costs	Notably, medical retirement, death benefits, hiring and training costs

### Impact of HIV/AIDS on Nutrition

Nutritional status of children and women offers important indicators at individual and household levels. To fully assess the impact of HIV/AIDS on nutritional status, in-depth studies are needed. A clinic-based monitoring system, however, may identify significant changes that can be linked to the impact of HIV/AIDS.

INDICATOR/MARKER	NOTES
Changes in the number of meals consumed per day Changes in the amount or variety of food eaten Increases in signs of malnutrition (e.g., underweight, stunting, wasting) in children under the age of 5 Increases in local food crises Increases in demand for food assistance Increases in informal food assistance (that is between households)	Where possible, disaggregate findings for all these indicators by sex and age

### Impact of HIV/AIDS on Income and Expenditure

Income and expenditure can be assessed at household or community levels or by specific population groups (sector and national expenditure related to HIV/AIDS are dealt with in other sections). Usually, in-depth studies are needed to trace income and spending patterns. However, key informant interviews can be useful to gauge the depth and extent of changes. Changes in spending patterns are observable when combined with information from businesses (including private sector medical, drug and funeral providers) and with information on trend in HIV prevalence rates, AIDS-related illnesses and deaths.

INDICATOR/MARKER	NOTES
Changes in household income during an AIDS-related illness and after an AIDS-related death	
Changes in sources of household income	Including borrowing, migration
Sale of household assets	May include land, livestock, equipment, jewellery, clothing, etc.
Changes in levels of savings	Notably, a drawing down of savings
Changes in applications for and use of credit	May include changes in credit availability and cost to consumers
Changes in who earns income	Is there an increased role for women and/or children?
Loss of job (or inability to work because of illness or caregiving) Loss of job-related benefits	
Changes in patterns of household spending, including changes that occur as a result of spending related to AIDS	Include spending on education
Levels of spending on antiretroviral drugs and related medical care	

<p>Reduction in expenditures in community businesses</p> <p>Changes in levels of consumer credit or criteria for granting credit</p>	
<p>Increases in income of certain community businesses</p>	<p>Likely to include medical providers, druggists, funeral businesses</p>

### Impact of HIV/AIDS on Poverty and Inequalities

HIV/AIDS can result in rapid impoverishment as households lose sources of income and face increased treatment, burial and other expenses. Community surveys and case-studies can trace and document the factors (including HIV/AIDS) that contribute to impoverishment and the outcomes of rapid socio-economic changes. Shifts in socio-economic and gender equality (and perhaps age-related aspects of equality) may be more difficult to fully substantiate, but it can be assumed that household sale of assets and job losses (for example, through medical retirement or termination) are all balanced to some degree by the gains of some people who acquire the assets or fill the vacated jobs.

INDICATOR/MARKER	NOTES
<p>Increases in families seeking public assistance, including food aid</p>	<p>Can include informal forms of assistance</p>
<p>Increases in use of public health services</p> <p>Increases in number of people unable to pay medical bills</p>	
<p>Increases in demand for loans and/or credit from formal and informal sources</p>	<p>Can include both formal and informal credit sources, including shops</p>

<p>Increases in sales of assets</p> <p>Increases in closing of savings accounts at banks, credit unions, post offices, etc.</p> <p>Increases in waged unemployment</p>	
<p>Increases in number of workers in informal sectors</p>	Disaggregate by sex, age and locality
<p>Increases in number of people working more than one job</p>	
<p>Changes in condition of the household dwellings</p> <p>Change in number of people/households that are destitute</p> <p>Declines in quality or capacity of community infrastructure</p>	
<p>Increases in number of female-headed households</p> <p>Increases in women and children doing off-farm work</p> <p>Changes in girl:boy ratios at school</p>	
<p>Changes in land ownership</p>	Including new acquisitions of land
<p>Changes in Gini-coefficient</p>	The change can be either positive or negative, depending upon who is affected by HIV/AIDS and which wealth indices are used

### Impact of HIV/AIDS on Businesses and Labour

Enough studies have been done on the impact of HIV/AIDS on the operation of large businesses to offer a reliable set of indicators. Far less research has been done on the impact on formal sector workers, including the availability of skilled workers, the loss of key skills, and the impact on morale and productivity. Similarly, little is known about the impact of HIV/AIDS on people in the informal and small-business sectors of the economy. Given the importance of each of these sectors to national economies and employment, the following tabulation is divided into three sections: large formal sector businesses; labour; and small service, retail and informal sector businesses.



INDICATOR/MARKER	NOTES
<i>LARGE FORMAL-SECTOR BUSINESSES</i>	
<p><b>Increases in the cost of health, life and safety insurance coverage</b></p> <p><b>Increases in the costs of providing on-site medical assistance</b></p> <p><b>Increases in the costs of death benefits</b></p>	<p>Many of the indicators about staff and production may be regularly compiled by businesses as a whole, or by specific sections of a business</p>
<p><b>Increases in staff absenteeism</b></p> <p><b>Increases in staff turnover</b></p> <p><b>Increases in cost of recruitment, training and retraining</b></p> <p><b>Changes in staff morale and workload</b></p> <p><b>Increases in disruptions of production and delivery schedules</b></p> <p><b>Changes in the number of people trained to work the same job</b></p> <p><b>Loss of technical skills and experiential knowledge</b></p> <p><b>Increasing difficulty to recruit appropriate staff</b></p> <p><b>Changes in amount of time to receive orders</b></p> <p><b>Notable declines in efficiency of regulatory authorities</b></p> <p><b>Unanticipated declines in pension funds</b></p>	
<p><b>Fewer insurance policies being issued</b></p>	<p>Insurance companies often require blood tests for applicants; people avoid insurance because they worry that HIV screening is included in the tests</p>
<i>LABOUR</i>	
<p><b>Increases in requests for union or business-provided emergency loans</b></p> <p><b>Increases in complaints about over-work or doing the work of absent employees</b></p> <p><b>Increases in complaints about discrimination due to HIV/AIDS</b></p> <p><b>Increases in complaints about unfair hiring practices or dismissals</b></p> <p><b>Increases in people preparing wills or requesting guidance to do so</b></p> <p><b>Increases in requests for HIV counselling and testing</b></p>	

<b>Changes in the social security system</b>	May include delays in regular payments to beneficiaries
<b>Changes in skill base of labour force</b> <b>Increases in recruitment of under-skilled or expatriate workers</b>	
<i>SMALL AND INFORMAL BUSINESSES</i>	
<b>Increases in customer credit defaults</b> <b>Reduction in amount of consumer credit being offered</b>	Defaults due to deaths or shifts in spending patterns due to HIV/AIDS are increasingly common
<b>Increases in closure of businesses</b>	Especially owner-operated and businesses with few employees
<b>Changes in costs of providing benefits</b> <b>Changes in amount or type of customer purchases</b>	

### Impact of HIV/AIDS on the Public Services

Continuity in the public sector is critical, but easily disrupted by HIV/AIDS. As in the private sector, the absence of workers, the loss of key skills or personnel, and the increased workload for civil servants (especially those working in places with few colleagues to provide support and backup), all have far-reaching implications. Few governments have planned for monitoring the impact of HIV/AIDS on the public service sector or planned to mitigate that impact.

<i>INDICATOR/MARKER</i>	<i>NOTES</i>
<b>Changes in rate of absenteeism</b> <b>Changes in staff mortality</b> <b>Changes in early retirements</b> <b>Increases in costs of medical assistance</b> <b>Increases in requests for loans and pay advances</b>	

<b>Increases in requests for leave</b>	For example, for caregiving and funeral attendance
<b>Disruptions in delivery of services</b>	For example, delays in handling routine paperwork, normal deadlines missed, delays in equipment repairs
<b>Decline in staff morale</b>	May be seen in increased absenteeism
<b>Increases in time required to fill posts</b> <b>Increases in number of vacant posts</b> <b>Increases in temporary or long-term closure of public facilities</b> <b>Increased frequency of elections or executive appointments due to deaths of representatives</b> <b>Changes in pension fund reserves and/or pay-outs</b>	

### Impact of HIV/AIDS on National Economies

Most studies on the impact of HIV/AIDS on national economic well-being have focused on macro issues, such as changes in GDP. At that level it is difficult to identify significant changes. From a development perspective, however, changes within the economy can be identified.

<b>INDICATOR/MARKER</b>	<b>NOTES</b>
<b>Increases in local or national social-economic crises</b>	Arising from greater difficulty of economy to effectively function and/or distress within certain populations groups
<b>Changes in tax revenues</b>	Disaggregated by source, if possible
<b>Increases or more frequent demands for increases in social welfare spending</b>	By concerned ministries or advocacy groups
<b>Shifts in sector proportions of annual budgets</b>	For example, increases in health spending, especially hospital/clinic and drug-line items

### Impact of HIV/AIDS on Community Responses

Some of the most sensitive indicators of both the impact of HIV/AIDS and efforts to mitigate that impact occur at community levels. These indicators can complement those from other topic areas, especially income and expenditure indicators. In addition, the indicators are important for illuminating and understanding how local groups are seeking to cope with and adjust to the outcomes of HIV/AIDS, including developing new initiatives.

INDICATOR/MARKER	NOTES
<p>Increases in number of households caring for orphaned children</p> <p>Increases in number of households experiencing distress</p> <p>Increases in examples of discrimination against people with or affected by HIV/AIDS</p>	
<p>Changes in number of or products carried by local shops and other businesses</p>	<p>May include local shops going out of business due to loss of customer base. Or the addition of products for home-based care</p>
<p>Increases in number of funerals in area</p>	<p>Some communities have made changes in funeral practices to cope with the increasing number and the demands on people's time</p>
<p>Changes in systems of social support</p>	<p>Increased stress and tension may be noticeable in existing systems or new ways of social interaction may be formed</p>
<p>Increases in disputes over property inheritance</p> <p>Increases in number of NGOs and CBOs addressing HIV-related issues</p>	
<p>Rate of turnover of NGOs/CBOs</p>	<p>Small groups that lose one or two key personnel may cease operations</p>
<p>Increases in the collection of money, food, clothing, etc., by faith-based groups for distribution</p>	

New organizations forming, especially informal support groups among women, elderly and/or youth	
Increased activism at the local level around HIV-related issues	Can include demands for treatment, food assistance, increases in public support programmes
Adoption of local laws, regulations and procedures designed to reduce HIV risk, to support orphaned children or to assist families affected by illness and death	

### Impact of HIV/AIDS on Policy and Programme Responses

Adoption, implementation, updating and enforcement of national and sectoral policies relating to HIV/AIDS prevention, care and mitigation are all solid indicators of concern about the impact of the pandemic.

INDICATOR/MARKER	NOTES
Adoption of national HIV/AIDS policy	Implementation is equally important
Regular meetings and reports from AIDS advisory committees	
Businesses, faith groups, NGOs and others adopt and implement HIV/AIDS policies	
Adoption and/or enforcement of laws protecting children from sexual exploitation	
Adoption and/or enforcement of laws prohibiting discrimination in the workplace and in access to services	
Changes in inheritance laws, with greater protection for widows and orphaned children	
HIV/AIDS issues fully addressed in PRSPs or other poverty documents	
National multisectoral plans adopted and implemented	
Debt reduction strategies include provisions for supporting HIV/AIDS mitigation	

## Tools to assist in Impact Assessments

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### **Computer Modelling**

Computer models are the most common tools that have been used in impact assessments. The models offer a projection, based on available data and several built-in assumptions, of the prevalence of HIV and AIDS five to twenty years in the future. The models have been used to estimate demographic and macro-economic impacts on society. Obviously, the reliability of the data used and the nature of the assumptions made determines the credibility of the projections. Data on costs have been added to several of the models to indicate the potential financial impact of HIV/AIDS, including for large individual businesses. The findings from the computer-based projections have been used for advocacy with a variety of decision-makers on the potential impact of HIV/AIDS.

Software for the following computer models, with guidelines for their use, is available from The Futures Group International, at <http://www.futuresgroup.com>. A discussion of these models and other tools is available at <http://www.iaen.org/models>.

The *Epidemic Projection Package (EPP)* is designed to estimate and project adult HIV prevalence in countries with heterosexual epidemics. EPP uses surveillance data from general populations or antenatal clinics. *The Spectrum Policy Modeling System* includes several components, including *AIM: AIDS Impact Model*, a frequently used model for projecting the potential impact of HIV/AIDS.

*AIDS Impacts Model for Business (AIM-B)* is an economic and demographic model designed to help managers analyse how HIV/AIDS is affecting their businesses and project how it will affect them in the future.

Also on the Futures Group website is a sample of a presentation of a typical AIM presentation. The presentation is designed to illustrate the dynamics of the AIDS epidemic, the socio-economic impacts of AIDS and options for addressing the epidemic. In addition, the website of the Policy Project includes numerous country studies, most dealing with the economic impact of HIV/AIDS.

Tata Tea Company in India, offers an Internet-based calculator to assess the costs of HIV/AIDS to a company. The calculator is simple and easy to use; and calculations are in Indian units. (<http://education.vsnl.com/sexu->

[alhealth/Economic](#) ). The Actuarial Society of South Africa offers a model for assessing demographic impact of HIV/AIDS (to registered users; registration is free) from their website ( <http://www.assa.org.za/aidsmodel.asp> ). The model projects year-by-year changes in an initial population profile. Like similar computer-based models, the Actuarial Society model works with a number of demographic, epidemiological and behavioural assumptions (the model includes a user's guide that discusses the assumptions).

### **Qualitative Assessments**

The Health Economics and HIV/AIDS Research Division (HEARD) of the University of Natal, South Africa, – based on global experiences – developed a set of analytical tools to assist in assessing the impact of HIV/AIDS. Both generic and sector specific guidelines are available through the HEARD website ( <http://www.und.ac.za/und/heard> ). The tools are fairly general and can be adapted to more specific situations.

The European Union published a toolkit for considering the implications of the HIV epidemic in the provision of development assistance. It has useful guidance for conducting impact assessments available online ( <http://europa.eu.int/comm/development/aids/toolkit/index.htm> ).

UNDP has conducted training programmes on the development implications of HIV/AIDS. Its publication, *HIV and Development Workshop: Training Manual*, includes some guidelines on assessing the impact of the pandemic. It, too, is available online and can be downloaded ( <http://www.undp.org/hiv/publications/#books> ).

Box 4.1

### Impact Assessment of HIV/AIDS on the Health Sector

The following steps can provide a quick impact assessment for the health sector and also serve as examples for application in other sectors. The process illustrates how generally available data can be used to determine current and future impacts of HIV/AIDS.

- 1 Estimate the number of AIDS cases using a projection model such as AIM (Chapter 3: *Computer modelling*), a part of a suite of software available at: <http://www.futuresgroup.com/WhatWeDo.cfm?page=Software&ID=Spectrum>
- 2 Estimate the increase in the demand for public-sector health care as a result of HIV/AIDS. This can be done by looking at what percentage of people currently use public healthcare facilities; this will provide a conservative estimate of the percentage of AIDS cases that also use these facilities. The underlying assumptions are:
  - (a) all AIDS cases will place new demands on the health system (given the age profile, this is realistic); and
  - (b) AIDS cases seen by the private or traditional sector will not seek public-sector health care (however, as household resources are depleted in the private sector, people may turn to the public sector. Thus, the finding may underestimate demand and cost).
- 3 Estimate the cost per AIDS case by:
  - (a) using the general rule that each case costs 2.7 times the *per capita* GNP;
  - (b) looking at the cost per case in similar countries where studies have been done;
  - (c) using the estimate of the percentage of patients seeking treatment for HIV/AIDS in the public health sector; and
  - (d) developing a specific cost per case estimate for the country.
- 4 Determine the cost of care as a percentage of the Ministry of Health budget currently and into the future, assuming the health allocation retains a constant share of the national budget.
- 5 Show the likely effect of increased mortality on health-care professionals, assuming they have the same levels of HIV infection as the 20- to 40-age cohort in the population.
- 6 Include additional costs if (it is assumed that) antiretroviral drugs will be made available to all or some HIV-infected people. Use the prevailing cost of such drugs.

**SOURCE:** Adapted from Tony Barnett and Alan Whiteside (2000)



## Using Various Forms of Impact Data

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The range and diversity of indicators and markers demonstrate the diversity of data that needs to be applied to achieve a good understanding of the impact of HIV/AIDS. Both quantitative and qualitative data are important in conducting HIV/AIDS impact assessments. By themselves, neither offers entirely satisfactory findings about the dynamics of the pandemic. Both quantitative and qualitative methods are needed to effectively assess the development impacts of HIV/AIDS.

Effective impact assessments utilise a variety of data drawn from a wide range of sources. To date, quantitative data have tended to dominate impact analyses, with a strong focus on economic and demographic impacts. Many macro-economic projections have rarely come close to the reality caused by HIV/AIDS. Thus there is an emerging (albeit often flawed) picture of changes occurring or potentially occurring at the level of national economies and in selected sectors. There are estimates of the number of orphaned children, but little knowledge of their living conditions and longer-term prospects for schooling and work, and additional qualitative data and anecdotal reports are needed to gain insights. Likewise, there are quantitative data on the impact on the productivity and profitability of a handful of large companies, but very little is known about changes in work conditions in those companies. To date, only impressionistic reports offer a sense of how smaller and informal businesses are affected by HIV/AIDS.

Quantitative economic and demographic data have yet to be adequately complemented with qualitative data that shed light on changes in living conditions or on social structures. The complexity of the pandemic and its multiple impacts requires a combination of data and insightful analysis of both HIV/AIDS and socio-economic information. Qualitative information, quantitative data, anecdotal reports and intuition all play a role in formulating and analysing development impact assessments.

Too few studies have been undertaken to understand the full impacts of HIV/AIDS on development. One consequence is that findings that are five to ten years old continue to be cited, and cited repeatedly without explicit recognition of significant changes. One example is fieldwork undertaken in the Kagera region of Tanzania in the early 1990s. A significant finding was that, while households suffered serious losses due to HIV/AIDS-related illnesses and deaths, most recovered economically

after two to three years. However, more recent studies have indicated a longer-term loss, including the dissolution of households as a result of HIV/AIDS.

### Considerations in Gathering Impact Data

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The complexity and sensitivity of HIV/AIDS and its impact generally requires a multidisciplinary team to design and analyse impact assessments. The team must focus on two broad questions:

- which issues, sectors and groups of people within those sectors will be included in the assessment?
- what is the intended use of the assessment—advocacy and/or planning?

Barnett and Whiteside suggest that a team should include “an epidemiologist and/or demographer, an economist, and a sociologist/social anthropologist who is used to working in relation to policy”, and all of whom are highly experienced with field surveys. We also suggest a gender specialist. All members of the team must have a multidisciplinary perspective so as to appreciate and work with the linkages that cut across both HIV/AIDS and development issues.

## USE OF IMPACT ASSESSMENTS IN ADVOCACY, PROGRAMME DESIGN AND POVERTY REDUCTION STRATEGIES

*“One of the common responses to the epidemic has been denial that there is a problem. This response has occurred at the individual, communal, and national level. The problem of denial is even greater with regard to impact because it is quite hard to demonstrate.”*

Barnett and Whiteside, (2000) —

Impact assessments are a tool for generating information for use in advocacy with decision-makers and, to a lesser degree, for planning prevention and care interventions. One of the problems with studies of the social and economic impact of HIV/AIDS is that they themselves have made little impact (Eriksen, 2002). People directly involved in such studies in countries around the world invariably report that little if any use has been made of their work. “One of the major problems with many impact studies is that they are commissioned, carried out and then shelved” (Barnett and Whiteside, 2000). A number of lessons can be learnt from the circumstances and outcomes of these studies.

### Limitations on the Use of Impact Assessment in Advocacy

**Low levels of HIV prevalence.** In many countries impact studies were carried out when HIV prevalence was low and the epidemic was still largely invisible to most people. The modelling of future scenarios, however solid the analysis and however much the experiences of other countries with more advanced epidemics were drawn upon, seemed too hypothetical to compete with the here-and-now concerns of leaders and other policymakers.

**Focus on macro issues.** Most impact studies have focused only on macro issues. The bulk of the research has been carried out by demographers who have modelled the effects of the epidemic on population structure and size and by macro-economists who have projected the impact on the GDP and/or estimated the costs (usually only direct costs) for the public health sector and for some large businesses. Macro-economic modelling is particularly speculative. In a world of a myriad of uncertainties, the models make the leap of faith that in the absence of HIV/AIDS there would be economic growth. “Reductions in GDP and GDP *per capita* growth caused by AIDS are probably less than variations in growth rates resulting from changes in the broader economic policy” (Whiteside, forthcoming). Discussions prompted by presentations of potential demographic and macro-economic impact often have been either on technical details related to the modelling software or on the accuracy of the assumptions that were made about the status of the epidemic. Frequently, such discussions seem to be a means of avoiding looking at the full implications of the evolving HIV/AIDS epidemic.

**Limited range of indicators.** Few socio-economic impact studies have focused on indicators of current impact on households, education, government services (other than health), and medium and small-sized businesses. Most impact studies, therefore, have not brought together a picture of what is actually happening that is broad enough to galvanize people and interest groups across a wide spectrum to design and lobby for mitigation strategies.

**Lack of specificity in conclusions and recommendations.** Most impact assessments draw conclusions that are too vague or make recommendations that are too sweeping or draw no conclusions at all. The conclusions are rarely linked with specific and achievable recommendations and strategies to guide decision-makers who want to act and need practical and feasible suggestions based on proven experience. This has occurred, in part, because presenters of the impact findings focus only on the technical details or lack the expertise to provide the types of practical guidance that many decision-makers need in order to act on the problems related to the HIV/AIDS epidemic.

**Donor rather than domestic drivers.** Most impact studies are donor-agency driven. The studies do not derive from the concern of local leaders and policymakers to know what is going on and what is likely to happen if

relevant prevention and mitigation strategies are not designed and implemented. This is especially problematic in countries where the epidemic has not yet become generalized and made a conspicuous impact.

**Limitations of research undertaken in isolation.** Most impact studies have been done by researchers without involvement of NGOs, civic groups and ordinary affected citizens. Thus, they have not contributed to informing a constituency that can use the findings for advocacy and for local prevention and mitigation efforts.

**Need for public dissemination.** Researchers who have conducted impact studies or the agencies that have sponsored them have too frequently failed to make the findings and recommendations available to the media and other shapers of public opinion. Typically, impact studies are simply submitted to the government or shared with other researchers.

### Use of HIV/AIDS Impact Assessments

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Building partnerships with activist organizations and other groups that would not obviously be identified with HIV/AIDS issues is absolutely critical for successful advocacy centring on HIV/AIDS. Broad alliances strengthen the resources and constituencies for an advocacy campaign, have more connections with political leaders and can bring more pressure to bear on policy and decision-makers. The Treatment Action Campaign in South Africa with its very broad membership of local activists, labour unions, women's and development agencies, and others is a significant example.

In many countries, especially low prevalence countries, one factor that has held back the building of broad partnerships is that AIDS does not appear to be a major issue compared to so many pressing problems such as poverty, unemployment, poor social services, the subordination of women and alienated youth. Presenting an AIDS epidemic as symptomatic of a lack of development or of flaws in development priorities and approaches holds the potential for building broad alliances.

Impact assessments have the opportunity to help break down the stigma widely attached to AIDS, a stigma that views the disease as the result of "sinful" behaviour. Such stigmatization has meant that many organizations and groups, including government entities, do not want to be associated with AIDS advocacy. Viewing the HIV/AIDS epidemic as

rooted in the lack of development, rather than in individual behaviour, and presenting the devastating impact an AIDS epidemic can have on all the indicators of development, works against such a bias and helps build partnerships for advocating development-oriented prevention and mitigation responses.

Presenting findings from development-focused HIV/AIDS impact assessments to the media, with press releases, editorials, special presentations and other appropriate means, helps draw attention to the issues, not to individual behaviours. For example, a kick-off event for publication of a book on HIV/AIDS in Kenya drew several high-ranking government representatives and the media. The media covered the event and continued to draw upon and cite the book in reports over several subsequent months.

A development impact assessment offers opportunities to work and advocate with policymakers and policy influencers in several ways. First, it presents a sensitive subject in the context of issues that most policymakers are more familiar and comfortable with. Economic growth, child welfare, women's rights – these and other issues are ones that policymakers regularly work on. All have direct and indirect linkages with the HIV/AIDS epidemic. In Malaysia, for example, one advocacy group that focuses on migration and on female and male migrant workers' rights presents information to policymakers on HIV/AIDS and human rights within the context of worker welfare and economic development (Fernandez, 1998). In Brazil, women's NGOs regularly monitor national and state legislation to assure that women's rights and interests, including those relating to HIV/AIDS, are fully represented (Saar and Cortes, 2002).

### Using Impact Assessments to Reduce the Poverty Impact of HIV/AIDS

HIV/AIDS impact assessments provide opportunities for the adoption of findings for planning development-oriented prevention interventions, equitable provision of care, and long-term mitigation of impacts. Mitigation is a means not only to assist people living with HIV/AIDS but also to rebuild the assets of households affected by HIV/AIDS and consolidate the infrastructure that will prevent further spread of this and other epidemics. Mitigation has received only limited attention within the context of the HIV/AIDS pandemic. Development-oriented initiatives to mitigate the impact of HIV/AIDS remain a fertile field for reconsidering development approaches and options and for engaging citizen involvement in those processes. Examples of mitigation efforts confirm this.

Thailand sought to mitigate the impact of HIV/AIDS by controlling the pandemic. One assessment concluded: “Although the government has given a high priority to HIV/AIDS prevention and control programs designed to mitigate the impact of HIV infection, the policies of related ministries are frequently vague and have little impact on target groups at the provincial level” (Janjaroen and Khamman, 2002). Two interrelated factors stand out in the experience of Thailand: first, the lack of direct involvement of local organizations in planning mitigation activities; and second, the rather haphazard and fragmented activities of public institutions.

A study in South Africa indicated that even minimal levels of broad-based institutional support can play an important role in assisting households to cope with the impact of HIV/AIDS (Booyesen *et al.*, 2001). Appropriate institutional support is critical and that generally implies rebuilding health, education, social welfare, agricultural research and extension systems, small business credit facilities and related institutions to serve people’s needs. Some of the requisite strengthening is specific to HIV/AIDS, such as offering low interest loans to families that otherwise would lose land or equipment in distress sales to cover medical expenses, but other forms of institutional strengthening will improve medical care for everyone and, in the process, expand access to antiretroviral treatment for people living with HIV/AIDS.

In high prevalence countries in Africa, mitigation has received some initial attention and provided a number of lessons for future action. For instance, several countries have reduced or eliminated fees to make it

easier for children to attend school. Tanzania and South Africa are among the countries training teachers and administrators to provide counselling and support to children affected by HIV/AIDS. Some donor agencies have focused on offering micro-credit for small businesses to affected and infected women and children in Zambia (Rau, 2002a). Several NGOs have facilitated community responses that reflect local problem-solving approaches (Foster, 2001; Silomba, 2000).

Behind these responses, there is an unspoken assumption that households will use their “traditional” coping strategies to reprioritise needs and adjust to changes arising from the impact of HIV/AIDS. But there are definite limits as to how far households can continue to adjust to the demands of HIV/AIDS and other external forces, particularly without increased institutional support (Rugalema, 2000).

The challenges to using social and economic impact assessments for mitigation are several, particularly in conveying a sense of urgency despite:

- the long-wave nature of HIV/AIDS and its impact that keeps the consequences hidden until individuals, households, communities, businesses and public services are already seriously affected;
- the myth that household and community coping strategies will minimize impact and therefore the need for greater public support; and
- the scant experience to date in designing mitigation responses, especially within a development framework that highlights the development inequities that fostered the HIV/AIDS epidemic.

None of these challenges is insurmountable. Well-designed development impact assessments provide the findings needed for advocacy and planning. An assessment of the impact of HIV/AIDS on children’s school attendance is likely to generate findings that deal with the reasons for children attending or failing to attend school, who those children are, and the quality of the education received by children when they are in school. Mitigation planning induces citizens and workers to look beyond the actual attendance figures. Mitigation planning engages local communities and social welfare and agricultural institutions to utilize their resources to assist families that might withdraw their children from



school. Mitigation planning will provide information for advocacy with education planners to increase the intake of teacher training institutions and alter the training curricula to better prepare teachers for work in the context of HIV/AIDS. There is also a need, if not already done, to include HIV/AIDS and STIs in Population and Family Life Education (PopEd/FLE) programmes.

Another advantage of development-oriented mitigation policies (and advocacy for them) is that they are broad-based and applicable to many people, not just those who are HIV-infected or affected. Unlike programmes targeted toward affected individuals and households, basic development programmes do not run the risk of heightening AIDS stigmatisation and discrimination. Other than in specific care and treatment programmes, the best response to the epidemic is to design and implement pro-poor policies.

### **Impact Assessments in Prevention and Care**

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The findings of impact assessments can be used to prioritise pro-poor policies and to plan specific programmes that are part of the implementation of such policies. Examples of such pro-poor policies include those that:

- sustain or rebuild public health systems and structure them to be accessible to all poor people and to effectively serve their needs;
- protect poor people by buffering them from the impoverishing effect of health expenditures, particularly through limiting cost recovery and providing affordable drug treatments for HIV and opportunistic infections;
- protect care givers, mostly women and older adults, from impoverishment as household resources are diverted to treating HIV-infected members (Knodel and Saengtienchai, 2002);
- assure access to basic education and vocational training, especially for girls;
- provide for safe water, sanitation, food security and other public health inputs to improve living and working environments for the poor;

- promote access to credit and employment opportunities; and
- support social and political organizations in poor communities.

Many countries have HIV/AIDS (and other health and social) surveillance systems in place (**Chapter Six**). The information derived from regular surveys can be used in assessing both the impact of HIV/AIDS and the impact of prevention and care interventions. For example, downward changes in STI prevalence in the late 1990s in Cambodia were used to persuade authorities of the effectiveness of STI clinics and services in controlling HIV/AIDS.

Such surveys can assist in targeting prevention and care services more effectively. The inclusion of several socio-economic questions in these surveys (for example: Are people in your area able to easily access palliative drugs and home-based care for HIV/AIDS?) can further assist in targeting and building support for new or additional interventions. During the debates about provision of affordable drugs for people living with HIV/AIDS, questions were raised about the ability of low-income people (notably in Africa) to adhere to the drug regimes. Research shows that people both could and would do so, thus further strengthening the case for such treatment.

### **HIV/AIDS in Poverty Reduction Strategy Papers (PRSPs)**

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A review of past experiences of HIV/AIDS impact assessments suggests that a particularly promising approach is to put the findings in a development context that identifies the cause and effect linkages between the HIV/AIDS epidemic and poverty, inequality, gender inequality, empowerment and other central issues of development. Programming for prevention, care and mitigation should be designed and carried out within a development framework: National poverty reduction strategies, often formed from PRSPs, offer a promising opportunity for this approach.

Since 1999 the Poverty Reduction Strategy Paper (PRSP) is the basis for all World Bank and IMF concessional lending, debt relief under the enhanced Heavily Indebted Poor Countries (HIPC) initiative and donor coordination. The PRSP is to be prepared on a three-year cycle by the government in a participatory manner involving stakeholders such as civil society. The main steps in the process of defining the poverty reduction

strategy are (i) understanding the nature of poverty, (ii) selecting public policies and actions that will have the most impact on poverty and (iii) identifying and monitoring outcomes (such as country-specific MDG targets). The PRSP should further identify the obstacles to poverty reduction and provide a description of the participatory process used during preparation and its findings.

PRSPs have become the leading development planning instrument in many countries. With 29 countries having completed a full PRSP by mid-2003, many of these have evolved into the national plan. The interrelationship of HIV/AIDS epidemics and poverty offers an opportunity to design strategies that focus on both issues in an integrated way. An assessment of the completed PRSPs indicates that there tends to be a certain vagueness, narrowness and ambivalence with which HIV/AIDS is treated in development planning.

Most of the PRSPs treat poverty as a static condition, rather than a result of changes leading to impoverishment as is occurring with the impact of HIV/AIDS. The Malawi PRSP notes, for example, that poverty is... “a state of continuous deprivation or a lack of the basics of life” (Malawi, 1993). The Tanzania PRSP suggests that . . . “poverty is defined to include ‘income’ and ‘non-income’ human development attributes” (Tanzania, 2000). The report expands on both the income and non-income components and offers examples, but it does not treat poverty as a dynamic process nor does it give more than passing mention to the phenomenon of HIV arising from and contributing to impoverishment.

In contrast to many PRSPs, that for Zambia provides a more dynamic view of poverty and links it with HIV/AIDS. The paper notes: “The foremost barrier to moving out of poverty in Zambia is the lack of sustained levels of positive growth. This has been exacerbated by increased income inequality, the persistence of discrimination against women and the girl child, insufficient investment in economic and social infrastructure to keep pace with requirements for rapid growth, and the HIV/AIDS pandemic” (Zambia, 2002). The Cambodian PRSP discusses how the impact of HIV/AIDS has revealed the inadequacy of current social protection mechanisms. Besides proposals to improve access for the poor to health care and basic social services, the PRSP describes the importance of human rights in this context by safeguarding the confidentiality of health records, permitting HIV positive people to continue

working as long as they can, and to initiate government-sponsored campaigns against discrimination.

Many PRSPs offer a plethora of statistics about poverty (“the poverty profile”) but scant analysis of the causes of so much impoverishment. An exception is the PRSP of Bolivia which offers some structural analysis of the causes of rural poverty but provides no carryover to the formulation of policies to address rural poverty. Nor is there any analysis in the PRSPs of the Latin American countries, even that of Honduras, of the poverty-related causes and consequences, current or potential, of HIV/AIDS. Viet Nam’s PRSP does refer to gender inequalities contributing to the spread of HIV. Likewise, it is taking measures to discriminate in favor of HIV/AIDS patients, [and] ensure that they have access to work like other people.

#### ***Impact of HIV/AIDS on Poverty and Development***

The PRSPs of the low-prevalence countries of Latin America have not integrated HIV/AIDS concerns into their poverty analysis. The Bolivia PRSP does not even mention HIV/AIDS, and Nicaragua and Honduras do so only to a slight extent. Yet all three of these countries suffer from some of the most widespread poverty and greatest inequality in the region, factors that contribute to risk of HIV infection. They are also countries of high adolescent fertility. Honduras has the highest levels of HIV/AIDS in the Central American sub-region, but the PRSP notes only the high incidence of poverty and serious diseases, including HIV/AIDS among indigenous groups (Honduras, 2001).

The Zambian paper offers a substantive statement on the relationship between HIV/AIDS and the country’s development opportunities. It states: “In essence, the high levels of poverty, the high debt burden and the high incidence of HIV/AIDS are mutually reinforcing and together constitute a tripod of formidable barriers to the country’s development”(Zambia, 2002).

The Malawi PRSP notes several aspects of impact, but does not follow this with an effective analysis of longer-term or multisectoral implications. Nor does the HIV/AIDS section deal with developmental policies and processes that increase risk and exacerbate impact. One paragraph is characteristic of this approach:

*‘The impact of the HIV/AIDS pandemic threatens all developmental efforts. For example, around 70,000 children become orphans every year, adding to the already large number of orphans, estimated at about 850,000. Further, there has been a three to fourfold increase in tuberculosis (TB) cases, from 5,000 cases in 1985 to about 25,000 cases in 1999. High infection rates also cause increased absenteeism from work due to AIDS related illnesses and funerals, increased medical bills, funeral costs, and payment of premature death benefits. In general, HIV/AIDS will continue to divert labour from productive activities to care provision, thereby increasing food insecurity and threatening the survival of communities*

(Malawi, 2002).’ —

The Mozambique paper begins with an analysis of the projected macro-economic impact of HIV/AIDS. It says that the health sector will be seriously affected by the extra burden it faces, although it currently only meets half of the current demand of the population. The PRSP notes that an impact assessment on the education sector is needed. Little discussion of other impacts is offered.

The Ethiopia PRSP is equally vague on key points: “The current level of 5% prevalence among adults in rural Ethiopia obviously poses a challenge to the agricultural sector. This challenge if left unchecked will affect the entire population at an accelerated rate” (Ethiopia, 2002). Ethiopia’s PRSP discusses impact primarily in terms of the affects on labour supply and quality. Most of the analysis describes the affects on productivity and the potentially lost opportunities for investments in the economy.

### **Responses to the HIV/AIDS Epidemic**

The PRSP of Uganda, a country often cited for leadership in responding to HIV/AIDS, sets targets for the HIV/AIDS response. A number of indicators are included for tracking progress in HIV/AIDS control including those for reducing susceptibility and vulnerability (such as access to land and water, schooling, and quality of life); rising inequality in some parts of the country is noted in relationship to HIV/AIDS concerns. Nevertheless, the PRSP places implementation of HIV/AIDS responses virtually exclusively in the health sector. There is, however, a notable inclusion in the PRSP of policy implications for gender relations proposing “support programs to empower women in order to enhance mutual

consent between couples on their sexual behavior, avoiding unwanted births and sexually transmitted diseases, especially HIV/AIDS”.

The Ethiopia paper cites the government’s strategic plan for addressing HIV/AIDS, but does not place that plan within the wider poverty context or link the HIV/AIDS plan to specific poverty reduction strategies. The Mozambique paper includes a short discussion of government support for basic prevention and care initiatives.

Guyana’s PRSP stresses further government support for drug treatments and prevention, education and counselling. It indicates that a comprehensive strategy will be developed within the prevention and treatment contexts but seems not to place the proposed strategy within the development context.

#### **| Mainstreaming of HIV/AIDS**

Discussions of mainstreaming HIV/AIDS prevention responses into the strategies of virtually all sectors (not just health) at both the conceptual and the intervention level (including critical cross-sectoral issues such as poverty and gender) has become commonplace in national HIV/AIDS strategies. Consequently the responses described in the PRSPs of higher prevalence countries usually refer to mainstreaming, whereas those for lower prevalence countries do not. On the basis of evidence from the discussions in the papers about the participatory processes for designing PRSPs, the sectoral teams appear to have given little attention to HIV/AIDS. The sectors that would be particularly relevant for mainstreaming HIV/AIDS in terms of a PRSP framework are: health and social affairs; transport; labour; youth; education; finance; agriculture; rural and community development; and women’s empowerment. Given the lack of analysis of the two-way interface between HIV/AIDS and poverty, it is not surprising that many PRSPs do not mainstream HIV/AIDS concerns into poverty reduction strategies.

Most PRSPs completed have generally missed the opportunity for effectively assessing the links between poverty, population and HIV/AIDS. Many include the elements needed to make the links, but have not taken those additional steps. The papers for Uganda, Viet Nam and Zambia are the most direct in that regard. The Zambia paper in particular is the most specific and direct about those links and may provide a model for others to follow. Perhaps more than anything, the PRSPs

reflect the need for multidisciplinary HIV/AIDS impact assessments to provide credible data that can inform poverty reduction strategies. A basic checklist for ensuring that HIV/AIDS considerations are mainstreamed into poverty reduction strategies is provided in **Table 5.1**

**TABLE 5.1:** Checklist for Mainstreaming HIV/AIDS in Poverty Reduction Strategies

ALL COUNTRIES	SERIOUSLY AFFECTED COUNTRIES
Has the impact of HIV/AIDS (current and/or projected) on poverty reduction efforts been analysed, showing the centrality of HIV/AIDS in understanding the dynamics of poverty, and the contribution that successful HIV prevention and treatment can make in terms of fighting poverty?	Has accelerating HIV/AIDS mortality among young adults been factored into the calculation of poverty reduction and economic growth targets, and projections for reaching the MDGs (proportion of people living below the poverty line, primary school enrolment, child mortality rates, malnutrition levels, etc.)?
Have gender disaggregation and analysis been incorporated to reflect the gender dimension and socio-economic and cultural implications for women?	Has the poverty reduction strategy been appropriately adapted, accelerated and scaled-up to address the generalized human development impact of HIV/AIDS?
Is universal access to reproductive health services, including reproductive and sexual health of adolescents, addressed in the poverty reduction strategy?	Has the poverty reduction strategy been adapted to respond to the more specific needs of people and communities particularly affected by HIV/AIDS, especially the needs of orphans, and the elderly, ensuring maximum coverage of social services, access to livelihood opportunities, etc.?
Does the poverty reduction strategy include specific commitments, targets, medium-term goals, short-term action targets related to HIV prevention, care and impact mitigation?	Has the poverty reduction strategy been adjusted to respond to the special needs of women affected by HIV/AIDS, as caretakers and breadwinners, in terms of support, social services, access to livelihood opportunities, etc.?
In the case of PRSPs, is HIV/AIDS reflected as a cross-sectoral, "Goal-Level" priority?	Has the impact of HIV/AIDS disease and mortality on public revenues been properly analysed and have adjustments in macro-economic planning been made accordingly?
Do HIV/AIDS strategies figure only in the health section of the poverty reduction strategy, or is it treated as a supra-sectoral concern (as is done in Uganda)?	Has the impact on all sectors been addressed in budget allocation decision-making, such as the need to recruit and train skilled public servants to replace those that have died of HIV/AIDS, coping with greater demands on poverty relief programmes, avoiding collapse of the health sector over-burdened with AIDS patients, etc.?

*continued*

<p>Are the poverty reduction strategies and the national strategic HIV/AIDS plans properly linked, complementing each other, sharing common targets and priorities, etc.?</p>	<p>Are poverty action funds, social action funds, or other financing mechanisms that reach districts and community organizations (thus bypassing central bureaucracies) being used to fund HIV/AIDS prevention, care and impact mitigation programmes, as part of national poverty and social development strategies (as is done in Uganda and Malawi)?</p>
<p>Has the multi-sectoral national HIV/AIDS strategic plan been fully costed and is it included within the Medium Term Expenditure Framework and reflected in the national budget?</p> <p>Do Medium Term Expenditure Frameworks account for all HIV/AIDS-related expenditures, including resources expended by the central National AIDS coordination unit, as well as line ministries, district authorities, and community organizations?</p> <p>Do HIV/AIDS concerns figure prominently in debt-relief negotiations and HIPC documents, and are debt relief savings being earmarked for HIV interventions?</p> <p>Have adequate public resources been allocated (in accordance with a multi-sectoral National Strategic HIV/AIDS plan) to the various government sectors, or alternatively have ministries been instructed to set aside a certain percentage of their existing budgets to HIV/AIDS?</p> <p>Are public resources available for province, district and village-level HIV/AIDS activities, or have province, municipal and district authorities been instructed to use a certain percentage of their existing budgets for HIV/AIDS? What proportion of these units are covered by effective programmes?</p> <p>Are there adequate institutional linkages and collaboration between the National HIV/AIDS co-ordinating body and the Ministry of Finance/Planning, in order to facilitate all of the above?</p>	

SOURCE: Modified from UNDP (2002a).



## CHAPTER 6 MAKING COUNTRY IMPACT ASSESSMENTS

### Dealing with Outcomes, Changes and Prospects

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Underlying the technical dimensions of designing an impact assessment and analysing the results are socio-cultural and political factors that are crucial in determining whether an HIV/AIDS development impact assessment will be relevant and useful. Most of the impact assessments conducted in the mid and late-1990s were intended to provide findings that would be used to inform, sensitise and mobilize political and business decision-makers to invest in HIV/AIDS prevention programmes. As noted in Chapter Five, the use of HIV/AIDS impact assessment findings for advocacy has had mixed results. Nonetheless, impact assessments remain powerful and persuasive tools in advocacy.

As a long-wave pandemic, HIV/AIDS can be embedded in a country or sub-group of people long before its impact is seen or felt. This makes it more difficult to illustrate impact at an early stage of the epidemic and to engage stakeholders and decision-makers. Using existing analyses of impact (such as illustrated in Chapter Three), it is possible to develop scenarios of potential future impact and thereby gain the attention of stakeholders of the potential harm of HIV/AIDS. Where a society is prepared to respond, development impact assessments offer a valuable tool for understanding the multiple dimensions and implications of the epidemic and for planning to minimize its impact.

Impact assessments may adopt a variety of time perspectives; they may be:

- retrospective: tracing what has already occurred over time, possibly using a time series data;
- cross-sectional snapshots: case studies of what is happening currently or at some particular point in time;
- forward looking: this is what potentially could happen; and
- a combination of all three perspectives.

Impact assessments tend to look at the negative side of the HIV/AIDS epidemics – the impact of illnesses and deaths. *Development impact assessments, however, deal with changes as well as outcomes* arising from HIV/AIDS. As communities, sectors and countries respond to the outcomes and changes, new social, economic and political situations emerge. Some of these offer opportunities, such as the stimulus to local communities to solve problems in creative ways. Development-oriented impact assessments not only document the harsh outcomes of the epidemic, but seek to highlight local and national responses that offer hope and direction for mitigating the impact of HIV/AIDS.

### Identifying Available Data

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Each country is different and the dynamic of the HIV/AIDS epidemics means that general statements about their impacts must be used with caution. However, assessing the impact of HIV/AIDS within a development context has the advantage that a substantial amount of quantitative and qualitative data are available on economic and social sectors. For example, education ministries maintain data on the number of teachers, usually broken down by specific locales. Agriculture ministries keep production statistics, again often specific to locales. Part of the task in development impact assessments is to examine regularly collected data from a perspective that is shaped by the HIV/AIDS epidemic. The depth and accuracy of HIV/AIDS impact assessments on development depends on several factors:

- the prevalence of HIV/AIDS in the country, in selected population groups or by sectors;

- the availability and quality of epidemiological, socio-economic, cultural and other development-oriented data; and
- a willingness, if appropriate, to extrapolate from other studies (such as local case-studies and studies from other countries or regions).

The prevalence of HIV/AIDS is a key factor in shaping impact assessments. Prevalence may be known from regular surveillance or prior surveys, or it may be assumed, but this is risky, especially if there is little information to guide the assumption. In some instances, analysts have made a judgment about HIV/AIDS prevalence based upon the existence of acknowledged risk factors, such as an active commercial sex sector, high levels of STDs, or a significant number of people engaged in injecting drug use.

Many countries, if not most, have set up HIV/AIDS surveillance systems to collect data on prevalence. Samples are collected annually or biannually. The number of surveillance sites and their location influences levels of confidence in reliability of the data. At an early stage of the epidemic, a country may have data only on reported AIDS cases but not on HIV prevalence, or epidemiological data on HIV may be limited to selected highly susceptible groups. By themselves, data on reported AIDS or AIDS-related cases can suggest current impact. However, AIDS data are often greatly underreported because of patient confidentiality, legal restrictions or other diagnoses related to HIV, such as TB. The stigma and discrimination associated with HIV/AIDS discourages many people from being tested in the first place. Epidemiologists indicate that HIV prevalence is often 8 to 12 times greater than reported AIDS cases.

Line ministries are important sources for sector information to supplement data from national statistical offices. Members of the Joint United Nations Programme on HIV/AIDS (UNAIDS) frequently generate information from their particular perspectives including labour force, poverty, sexual behaviour and population characteristics. Several bilateral aid agencies also support large HIV/AIDS programmes and generate data and reports on a regular basis. Members of UNAIDS, bilateral aid agencies and national organizations are represented on an AIDS theme group in many countries. The AIDS theme group is organized by a United Nations member of UNAIDS. A number of major and frequently used sources of data are identified in **Table 6.1**.

Many more local, national and web-based sources of data are available and should be identified for use in a development impact assessment. NGOs, for example, have provided the most active and vigorous response to HIV/AIDS. Many have been involved in prevention and/or care activities for years. A focused discussion with one or more staff members of key NGOs can provide a useful framework for considering trends and changes. Some NGOs maintain information systems and produce reports on aspects of their work. Again, these can be an important complement to hard data that have been generated for an impact assessment.

### Putting the Systems into Place

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Technical, administrative and political systems are needed to effectively conduct an impact assessment. Any assessment dealing with the development impact of HIV/AIDS, however, is unlikely to have all the necessities easily or readily in place. Compromises are likely to occur, specially in newly explored areas, until more experience and information are gained. Some of the first assessments of the impact of HIV/AIDS on businesses, for example, were completed in less than two weeks. One compromise often accepted is a smaller or more time-bound assessment than initially conceived. These can be cost-effective, generate useful experience and provide initial data that otherwise would not be available at all.

The most important system is one that provides data on both HIV and AIDS cases. Currently, many countries maintain HIV/AIDS surveillance systems. The National AIDS Control Programme normally manages the surveillance surveys. The most common targeted population group for HIV/AIDS surveillance surveys is women who attend antenatal clinics. In the absence of much more extensive surveys, pregnant women are considered a reasonable and reliable subset for estimating national HIV/AIDS prevalence. Other groups that may be tested for HIV include commercial sex workers, men and/or women with STIs, IDUs, transport workers and military recruits – all considered to be among the most vulnerable and susceptible to HIV/AIDS (WHO and UNAIDS, 2000).

So-called second-generation surveillance systems exist or are being set up in a number of countries, especially where the epidemic is more advanced. These are more geographically extensive than earlier systems and in addition incorporate the study of attitudes, awareness and

**TABLE 6.1:** Key Sources of Data for Impact Assessments

AREA OR SECTOR	SOURCES OF DATA	WEBSITES
<b>HIV/AIDS</b>	National AIDS Control Program UNAIDS provides annual updates US Census Bureau, International Programs  US Agency for International Development (USAID)	<a href="http://www.unaids.org">http://www.unaids.org</a> <a href="http://www.census.gov/ipc/www/hivaidsn.html">http://www.census.gov/ipc/www/hivaidsn.html</a> <i>information on selected countries</i> <a href="http://www.usaid.gov/pophealth/aids/Countries/index.html">http://www.usaid.gov/pophealth/aids/Countries/index.html</a>
<b>OTHER EPIDEMIOLOGICAL DATA (STI, TB)</b>	Ministry of Health World Health Organization (WHO)	<a href="http://www.who.int/gtb/index.htm">http://www.who.int/gtb/index.htm</a>
<b>DEMOGRAPHIC</b>	Ministry of Planning Central Statistics Office United Nations Population Division Ministries of Planning and Health; Statistics Offices  United Nations Children’s Fund (UNICEF)  Demographic and Health Surveys (DHSs)	<a href="http://www.un.org/esa/population/unpop.htm">http://www.un.org/esa/population/unpop.htm</a>  <a href="http://www.unicef.org">http://www.unicef.org</a>  <a href="http://www.measuredhs.com">http://www.measuredhs.com</a>
<b>POVERTY</b>	Poverty Reduction Strategy Papers (PRSPs) International Fund for Agricultural Development (IFAD) Eldis (database of reports and articles) International and national NGO surveys	<a href="http://www.worldbank.org/poverty/strategies">http://www.worldbank.org/poverty/strategies</a> <a href="http://www.ifad.org/rural">http://www.ifad.org/rural</a> <a href="http://www.eldis.org/poverty">http://www.eldis.org/poverty</a>
<b>GENDER</b>	Women’s Bureau (or equivalent) World Bank International Center for Research on Women Women in Development Network	<a href="http://genderstats.worldbank.org">http://genderstats.worldbank.org</a> <a href="http://www.icrw.org">http://www.icrw.org</a> <a href="http://www.focusintl.com/widnet.htm">http://www.focusintl.com/widnet.htm</a>
<b>ORPHANED CHILDREN</b>	Ministry of Social Welfare (or equivalent) <i>Children on the Brink 2002</i>	<a href="http://www.usaid.gov/pop_health/aids/Publications/docs/childrenbrink.pdf">http://www.usaid.gov/pop_health/aids/Publications/docs/childrenbrink.pdf</a>
<b>LABOUR FORCE</b>	Ministries of Labour and Planning International Labour Organization (ILO)	<a href="http://www.ilo.org">http://www.ilo.org</a>

*continued*

<b>INTERNATIONAL MIGRATION</b>	Ministries dealing with work Private employers International Organization for Migration (IOM)	<a href="http://www.iom.int">http://www.iom.int</a>
<b>AGRICULTURE</b>	Ministry of Agriculture Food and Agriculture Organization of the United Nations (FAO) FAO's statistical databases	<a href="http://fao.org">http://fao.org</a> <a href="http://apps.fao.org">http://apps.fao.org</a>
<b>POLICY AND LEGAL RESPONSES TO HIV/AIDS</b>	National AIDS Control Program Policy Project, The Futures Group	<a href="http://www.tfgi.com/areas/hiv aids.htm">http://www.tfgi.com/areas/hiv aids.htm</a>
<b>DEVELOPMENT ISSUES</b>	Accessible Information on Development Activities (AIDA) operated by the World Bank Social Watch	<a href="http://www.developmentgateway.org/node/100647">http://www.developmentgateway.org/node/100647</a> <a href="http://www.socwatch.org">http://www.socwatch.org</a>
<b>REGIONAL ORGANIZATIONS</b>	African Development Bank Asia Development Bank Caribbean Development Bank Inter-American Development Bank Islamic Development Bank Economic Commission for Africa Economic and Social Commission for Asia and the Pacific Economic Commission for Latin America and the Caribbean Economic and Social Commission for Western Asia Interstate Statistical Committee of the Commonwealth of Independent States	<a href="http://www.afdb.org">http://www.afdb.org</a> <a href="http://www.adb.org">http://www.adb.org</a> <a href="http://www.caribank.org">http://www.caribank.org</a> <a href="http://www.iadb.org">http://www.iadb.org</a> <a href="http://www.isdb.org">http://www.isdb.org</a> <a href="http://www.uneca.org">http://www.uneca.org</a> <a href="http://www.unescap.org">http://www.unescap.org</a> <a href="http://www.eclac.cl">http://www.eclac.cl</a> <a href="http://www.escwa.org.lb">http://www.escwa.org.lb</a> <a href="http://www.cisstat.com/eng/index.htm">http://www.cisstat.com/eng/index.htm</a>

behaviours to assess changes and impact of prevention efforts. Furthermore, the second-generation surveillance systems have standardized biological, behavioural and demographic indicators which permit great reliability in making cross-country comparisons (WHO and UNAIDS, 2000).

Increasing attention is being given to monitoring changes in risk behaviours and in behaviours of population groups key to driving the epidemic, such as the sexual behaviour of adolescents and youth. Willingness to use condoms, seek treatment for STIs, reduce sexual relations with non-regular partners, and other behavioural indicators are being assessed. The cost of behavioural surveillance has constrained wider adoption of the system. Nevertheless, these behavioural surveillance systems can assist impact assessments by indicating the effectiveness of prevention programmes, including at local levels.

Other technical systems include data collection within the main sector(s) in which an impact assessment is to be done, such as in education, agriculture or public sector staffing. Most of these sectors have data collection systems. The availability and timeliness of the data are of importance in designing an HIV/AIDS impact assessment. Even raw data may be up to one year old by the time the information reaches a central office. Presentation of an impact-assessment findings needs to acknowledge that conditions are likely to have changed during the time that has elapsed. In advocacy, this can be offered in a positive way to persuade decision-makers that only timely interventions can overcome the lag in addressing HIV/AIDS.

**Administrative considerations:** The *first* is: who will design and conduct the impact assessment and who will analyse the data and present the findings? As suggested in Chapter Four, a multi-disciplinary team is the ideal because of the complementary skills and perspectives members bring to the task. That team can be as small as two people, perhaps backed by an informal advisory group to assist in the design and analysis. The necessary skills to conduct an HIV/AIDS impact study can often be found at a university or college, at a research institute, or sometimes within an implementation agency. A team of medical specialists is neither appropriate nor necessary to assess the development impact of HIV/AIDS. Rather, people with diverse skills in sociology, epidemiology, economics and gender issues will be the most appropriate.

A *second* consideration is funding. Some impact assessments have been very costly. Most have been funded by international agencies, although some large multinational corporations have funded assessments for internal use. Because of resource constraints and denial about the epidemics, most governments have not directly funded HIV/AIDS impact studies, but some have provided in-kind support with staff and logistics.

Institutional arrangements constitute a *third* administrative factor to consider. Some government ministries or departments may be reluctant to consider an HIV/AIDS impact assessment, arguing that the disease remains the responsibility of the Ministry of Health. This argument is becoming less tenable, however, as national policies and strategies stress multisectoral responses, with accompanying inter-ministerial coordination. It is becoming increasingly difficult for sectoral supervisors to resist suggestions for an impact assessment by arguing that it is not relevant to their field. The National AIDS Control Programme will be an important institutional partner in an impact assessment. It can provide credibility and logistical support and promote the findings.

*Finally*, political support may be ambivalent. As noted, some political leaders are reluctant to give high priority to the epidemic in their country, offering a number of rationales. Indeed, the findings of impact assessments often have been used to build political interest and support. Some political and sectoral leaders will be concerned about HIV/AIDS and can be important supporters for gaining a deeper and broader understanding of its consequences for society. Their support can be critical in assuring that bureaucratic obstacles and suspicions of target populations are minimized.

## Challenges

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Quantitative economic and demographic data have yet to be adequately complemented with qualitative data that shed light on changes in living conditions or on social structures. The complexity of the epidemics and their multiple impacts requires a combination of comprehensive data and insightful analysis of HIV/AIDS, socio-economic and socio-cultural information. Qualitative information, quantitative data, anecdotal reports and intuition all play a role in whether to undertake development impact assessments and how to design them.



All data, including those from major development agencies, are constrained by limitations. Data definitions, dates, frequency and areal boundaries may differ and change over time, making long-term analysis difficult. In addition, comparisons between countries are limited by differences in data collection and methods of analysis. Accessing a diverse range of sources of information is important but needs to be matched by the use of a variety of appropriate analytical skills including a degree of scepticism about quickly derived or so-called definitive answers. There is pressure to provide such answers because politicians and policymakers often expect, and are looking for, a dramatic and measurable impact from the disease, something they can respond to in a technical manner as they respond to many other social, economic and medical problems (Barnett and Whiteside, 2000). Those technical fixes, however, seldom prove adequate in identifying effective solutions in the development context of HIV/AIDS.

A challenge is to look beyond the situations described in impact assessments and plan for the future. And findings may convey a static picture of the situation in contrast to the reality: the dynamic and changing character of HIV/AIDS and its impacts. Planning prevention, care and mitigation responses that look five to ten years into the future will be more effective than those designed to address a situation construed as that existing today.



## USEFUL MAJOR WEBSITES: HIV/AIDS AND DEVELOPMENT

### UNAIDS

[www.unaids.org](http://www.unaids.org)

- ▶ AIDS Epidemic Updates
- ▶ Epidemiological Fact Sheets for over 175 countries. Some fact sheets are incomplete.
- ▶ Global Fund to Fight AIDS, Tuberculosis and Malaria Link to the *Stop Global AIDS* site. *Stop Global AIDS* seeks to donate the dollars, treat the people, drop the debt, and educate about the epidemic. Good educational website for youth. Includes a quiz on AIDS.
- ▶ HIV/AIDS and gender
- ▶ HIV/AIDS and human rights
- ▶ HIV/AIDS and security
- ▶ Monitoring and evaluation, including monitoring the MDGs.
- ▶ Publications
- ▶ World AIDS Campaign 2002-2003
- ▶ Young people and HIV/AIDS

### UNDP

[www.undp.org](http://www.undp.org)

- ▶ HDRs — Global, Regional and National Reports
- ▶ MDGs — monitoring and reports

**UNFPA**

[www.unfpa.org](http://www.unfpa.org)

- ▶ State of the World Population
- ▶ Series of Population and Development Strategies Reports

**US BUREAU OF THE CENSUS**

[www.census.gov](http://www.census.gov)

- ▶ HIV/AIDS Surveillance Data Base
- ▶ Site has information on demographics for countries worldwide, but it has so much detail it can be hard to find the information you want.

**UNRISD**

[www.unrisd.org](http://www.unrisd.org)

- ▶ HIV/AIDS and Development. *AIDS in the Context of Development*.

**UNICEF**

[www.unicef.org](http://www.unicef.org)

- ▶ *The State of the World's Children*

**INNOCENTI RESEARCH CENTRE**

[www.unicef-icdc.org](http://www.unicef-icdc.org)

- ▶ *Aids, Public Policy and Child Well-being*

**CENTERS FOR DISEASE CONTROL**

[www.cdc.gov](http://www.cdc.gov)

- ▶ Health Topics A-Z; AIDS/HIV; the CDC's role in HIV Infection.

**CANADIAN INTERNATIONAL DEVELOPMENT AGENCY**

[www.acdi-cida.gc.ca/](http://www.acdi-cida.gc.ca/)

- ▶ Confronting the Global Epidemic

**THE WORLD BANK**

[www.worldbank.org](http://www.worldbank.org)

- ▶ E-discussions. Global dialogue on AIDS economics. Countries and Regions. Data and Statistics.
- ▶ PRSPs

**HEALTH ECONOMICS AND HIV/AIDS RESEARCH DIVISION (HEARD)**

[www.und.ac.za/und/heard](http://www.und.ac.za/und/heard)

- ▶ AIDS Briefs
- ▶ AIDS Toolkits. Useful and easy to navigate.

#### **FAMILY HEALTH INTERNATIONAL**

[www.fhi.org](http://www.fhi.org)

- ▶ State-of-the-Art Briefs on AIDS
- ▶ Interventions for HIV Prevention
- ▶ Impact (Implementing AIDS Prevention and Care) Project. *Impact on HIV* is “FHI’s magazine for people interested in innovative approaches to HIV/AIDS prevention and care.”
- ▶ Publications such as *Facing the AIDS Pandemic* and *Workplace HIV/AIDS Programs*
- ▶ AIDS Control and Prevention (AIDSCAP) Project

#### **THE FUTURES GROUP**

[www.futuresgroup.com](http://www.futuresgroup.com)

- ▶ Demographic and economic impact analytical tools, including downloadable software and manuals
- ▶ Publications on impact in numerous countries (now somewhat dated)
- ▶ Online listing of national HIV/AIDS policies

#### **THE LANCET JOURNAL**

[www.thelancet.com](http://www.thelancet.com)

- ▶ News reports on HIV/AIDS on home page such as, “HIV-1 transmission in rural Uganda. Trial concludes that interventions to promote safer sex and to control sexually transmitted infections [STIs] did not lower the incidence of HIV-1 infection.”

#### **THE HIV/AIDS IMPACT ON EDUCATION CLEARINGHOUSE**

<http://iiep.tomoye.com/ev.php>

- ▶ Studies and reports on impact of HIV/AIDS on education

#### **INTERNATIONAL AIDS ECONOMICS NETWORK**

[www.iaen.org](http://www.iaen.org)

- ▶ Numerous studies on the economics of HIV/AIDS prevention and treatment, including impact. Site provides data, tools and analysis for researchers and policymakers working to define and implement effective AIDS policies and programmes.

#### **GENDER AND AIDS**

[www.genderandaids.org](http://www.genderandaids.org)

- ▶ Operated by UNIFEM, includes topics on HIV/AIDS prevention and care incorporating a gender perspective. The topics page provides “researchers, [policymakers] and practitioners access to cutting-edge information.” Topics include Gender Mainstreaming, Legislation and Policy, Men and Masculinities, and Sex Workers and HIV/AIDS.



## ANNOTATED BIBLIOGRAPHY OF RECOMMENDED SOURCES

**BARNETT, TONY, and ALAN WHITESIDE** (2002a) *AIDS in the Twenty-First Century: Disease and Globalization*. Palgrave MacMillan, New York.

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This is perhaps the only book-length exploration of the social and economic context of HIV/AIDS and the impact of the epidemic on households, communities, companies, governments and countries. The authors are long-time researchers on these issues. Barnett is based in the United Kingdom and Whiteside in South Africa, and they have world-ranging experience. Well documented, yet readable.

**COHEN, DESMOND** (1998a) “Poverty and HIV/AIDS in sub-Saharan Africa.” UNDP Issue Paper 27, UNDP, New York.

[www.undp.org/hiv/publications/issues/english/issue27e.html](http://www.undp.org/hiv/publications/issues/english/issue27e.html).

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A succinct (4-page) Issue Paper in a series available online in UNDP’s HIV and Development Programme. Sets out in the sub-Saharan African context how the “process of poverty” facilitates the spread of HIV infection and the processes through which the experience of HIV and AIDS by households and communities leads to an intensification of poverty. Sees the fundamental problem as “how to achieve the sustainable development essential for an effective response to the epidemic under conditions where the epidemic is destructive to the capacities essential for the response”.

**COLLINS, JOSEPH, and BILL RAU** (2000). *AIDS in the Context of Development*. UNRISD/UNAIDS, Geneva.

[www.unrisd.org](http://www.unrisd.org).

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Analyses the socio-economic context driving the HIV/AIDS epidemics. Also provides examples of community responses to the epidemics. Critically discusses three interrelated approaches formulated by government and donor agencies: integration of HIV/AIDS prevention and care with existing sectoral programmes; mainstreaming of prevention and care into normal governmental activities (including planning, budgeting and evaluation); and scaling up effective initiatives to cover a wider area or a larger number of people. The paper ends with suggestions for further social science research on HIV/AIDS and development.

**CORNIA, GIOVANNI ANDREA (ED)** (2002). *AIDS, Public Policy and Child Well-Being*. UNICEF Innocenti Centre, Florence.

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A series of 15 papers based on research conducted since 2000 in eight countries (Uganda, Kenya, Senegal, Cote d'Ivoire, South Africa, Thailand, China, and India) of the impact of HIV/AIDS on the well-being of children. Other papers cover policy responses that affect children. The country case-studies are some of the fullest and most useful studies available on the impact on children. The evidence presented raises serious concerns about the ability of countries and the international community to sustain achievements in child welfare from earlier decades. All of the papers can be downloaded from the Innocenti Centre website (<http://www.unicef-icdc.org/research>).

**DU GUERNY, JACQUES** (2002). "Agriculture and HIV/AIDS." UNDP South East Asia HIV and Development Project, February 2002.

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One of several important publications on the socio-economic dimensions of HIV/AIDS from the UNDP South-East Asia office. The author brings prior experience at the Food and Agriculture Organization of the United Nations (FAO) to outline the implications of HIV/AIDS for agricultural production. The study discusses the various impacts of the HIV epidemic on agriculture, food security and rural livelihoods. Significantly, the point is made that the agriculture sector should not attempt to carry out health work for



which it is ill equipped (such as condom distribution), but build upon its skills, such as monitoring changes in agricultural production processes.

**FARMER, PAUL** (1999). *Infections and Inequalities: The Modern Plagues*. University of California Press, Berkeley.

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Farmer, who was trained in both infectious diseases and anthropology, uses these disciplines and his twenty years of medical experience in Haiti to analyse the biologic and social realities of chronic infectious disease. For Farmer, the causes of tuberculosis and AIDS have as much to do with social inequality as they do with micro-organisms. He argues that social and economic inequalities “have powerfully sculpted not only the distribution of infectious diseases but also the course of health outcomes among the afflicted.” Farmer derides the anthropological studies of the 1980s that explained the emergence of AIDS in Haiti as the consequence of “exotic” indigenous practices such as voodoo. Instead, he argues, these researchers should have emphasized local and regional socio-economic conditions that promoted dissemination of the human immunodeficiency virus (HIV) and impeded health care. Emphasizing the role of culture, and not the roles of poverty and inequality in infectious disease, can even cause harm by distraction from the real issues.

**GREENER, ROBERT** (2000). *Impacts of HIV/AIDS on Poverty and Income Inequality in Botswana*. Botswana Institute for Development Policy Analysis, Gaborone.

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Using data from a 1994 household poverty survey, the author conducts a simulation analysis to suggest the potential impact of the high levels of HIV/AIDS on future levels of poverty and inequality in Botswana. The analysis predicted a rapid increase in the number of very poor and destitute households in the first decade of the 21st century. It would be these households, too, that would experience the most significant changes in equity, although national level measures of income inequality are not expected to worsen.

**LOEWENSON, RENE, and ALAN WHITESIDE** (2001). *"HIV/AIDS: Implications for Poverty Reduction."* Background paper prepared for the United Nations Development Programme (UNDP) for presentation to the UN General Assembly Special Session (UNGASS) on HIV/AIDS, 25-27 June.

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This Background Paper prepared for UNDP for the UNGASS on HIV/AIDS in June 2001, focuses on counteracting the developmental impact of the epidemic. First, the paper describes the devastating and multifaceted socio-economic impact of HIV/AIDS. Secondly, it identifies five priorities for action in coping with the impact: preventing the collapse of essential public services, intensifying and adapting poverty reduction efforts, protecting educational achievements, mitigating the impact on labour productivity and supply, and promoting opportunities for women, who carry the brunt of the epidemic. A clear and concise statement of the development implications of HIV/AIDS.

**MALAWI INSTITUTE OF MANAGEMENT** (2002). *"The impact of HIV/AIDS on human resources in the public sector of Malawi."* Unpublished report.

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Although not published (as of 2002) and not readily available, this is the most thorough country study available on the impact of HIV/AIDS on staffing and service delivery in the agriculture, education, health and uniform services components of Malawi's public sector. Detailed data collection on staffing levels, absenteeism, vacancies and recruitment was undertaken. While it is not always possible to link staffing conditions to HIV/AIDS, the argument is convincing that the epidemic is having a deep and lasting impact on Malawi's civil service.

**RAU, BILL** (2002a). *Combating child labour and HIV/AIDS in sub-Saharan Africa: A review of policies, programmes, and projects in South Africa, the United Republic of Tanzania and Zambia to identify good practices.* ILO, Geneva.

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This paper, based on key informant interviews and a literature review, provides data and analyses on the relationship between HIV/AIDS and children in the world of work in the three countries reviewed. It represents one of the most thorough studies to look at one set of development-related linkages in the context of HIV/AIDS, both in terms of working children, especially girls, being exposed to HIV/AIDS risks, and HIV/AIDS-affected

children having to seek work to cope. Examples of local project and national policy responses are provided. The paper is available for download through the International Labour Organization website:

[http://www.ilo.org/public/english/standards/ipecc/publ/policy/aids\\_africa.pdf](http://www.ilo.org/public/english/standards/ipecc/publ/policy/aids_africa.pdf)

**RUGALEMA, GABRIEL H.R.** (1999). *“Adult Mortality as Entitlement Future: AIDS and the Crises of Rural Livelihoods in a Tanzanian Village.”* Dissertation. Institute of Social Studies, The Hague, The Netherlands.

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This book is Rugalema’s doctoral dissertation based on fieldwork he carried out in 1996, in a village in the Bukoba district of his native Tanzania. He examines the impact of prolonged illness and adult mortality due to HIV/AIDS on smallholder households in a village greatly affected by the epidemic. He focuses on the processes and mechanisms through which morbidity and mortality consume household assets and lead to impoverishment (using the theoretical framework of Amartya Sen). He looks at the type of assets consumed in coping with AIDS-related illness and the ways in which households reorganize, or fail to reorganize, their livelihood as a consequence of illness and death due to AIDS.

**TOPOUZIS, DAPHNE** (2003). *Addressing the Impact of HIV/AIDS on Ministries of Agriculture: Focus on Eastern and Southern Africa.* FAO/UNAIDS.

[www.fao.org](http://www.fao.org).

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This excellent paper focuses on the impact of HIV/AIDS on ministries of agriculture (staff, capacities and operations) and on agriculture, especially the smallholder sector, in eastern and southern Africa. It also discusses the relevance of certain ministry of agriculture policies, strategies and programmes in view of the conditions being generated by HIV/AIDS. Recommendations for ministries of agriculture are included in this discussion.

**UNDP** (2001). *Human Development Report: Burkina Faso – 2001.*

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One of a growing number of UNDP country reports (<http://hdr.undp.org/>) on the implications of HIV/AIDS for development. This report looks at impacts on policy and programme responses in several social welfare sectors of society. Numerous tables and graphs add to the effectiveness of the pres-

entation. The report discusses what is known and can be speculated upon and equally how much is not known in Burkina Faso, a country with a moderate, but growing HIV/AIDS epidemic.

**USAID, UNICEF, and UNAIDS** (2002). *Children on the Brink*. Washington, D.C.

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The publication is one of the most comprehensive summaries of the impact of HIV/AIDS on children. It contains statistics from 88 countries on children orphaned by HIV/AIDS, analysis of the trends found in those statistics, and strategies and principles for helping the children. It is primarily an advocacy document, designed to provide evidence for scaled-up responses to meet the needs of children affected by HIV/AIDS and to highlight effective programme and policy responses.

**WORLD BANK** (1997). *Confronting AIDS: Public Priorities in a Global Epidemic*. Oxford University Press, New York.

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One of the first synthesis reports that incorporated the impact of HIV/AIDS on social services with an emphasis on the health sector. The book sought to be a tool for advocacy with public officials, to formulate prevention policies and programmes. Some data, not available elsewhere, is offered from a large World Bank study on the impact on households in Tanzania. A useful appendix describes studies that can assess the cost effectiveness of prevention interventions. Numerous graphs and charts enhance the presentation.

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