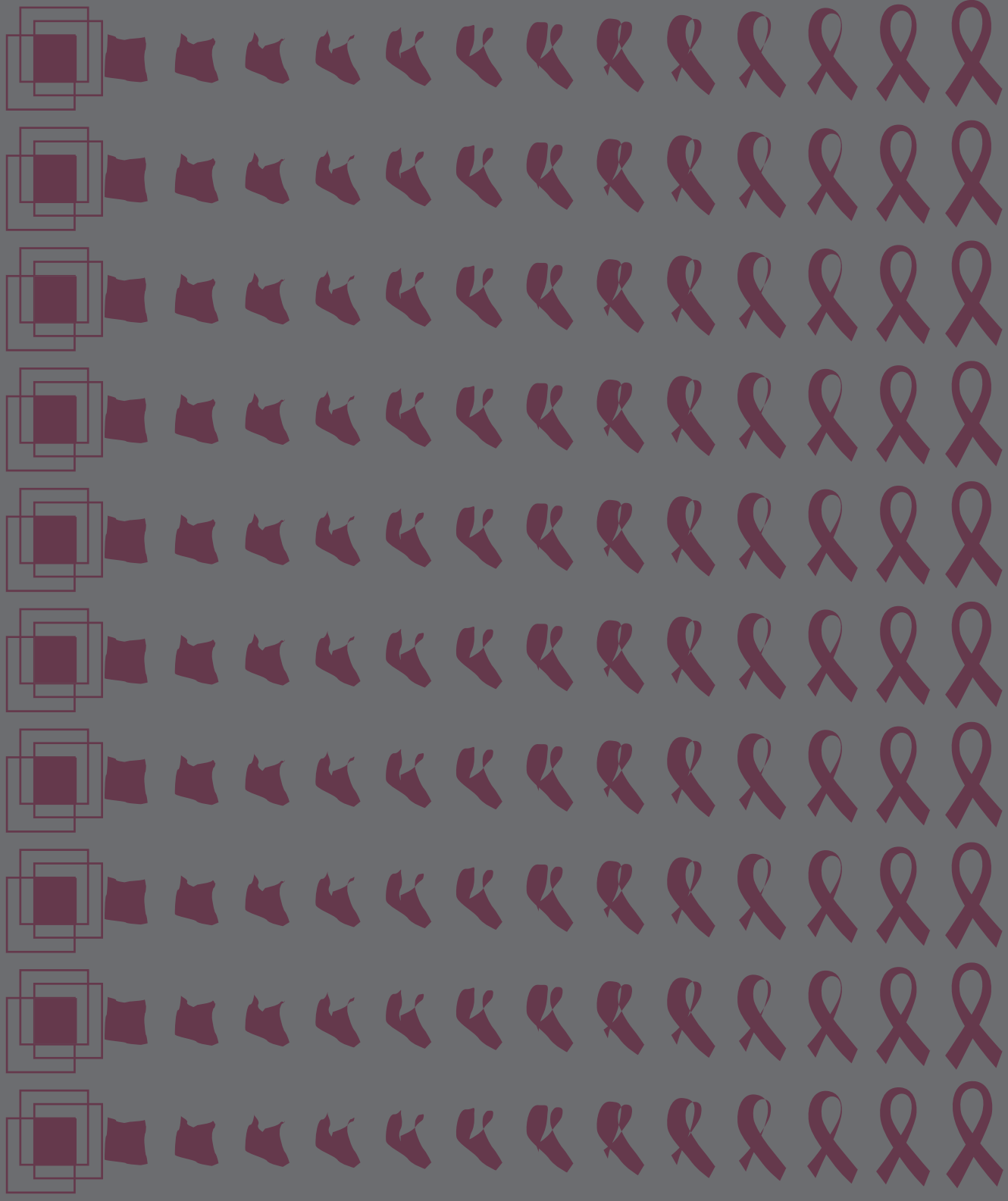
HIV/AIDS and work: global estimates, impact on children and youth, and response 2006

International Labour Office



The ILO Programme on HIV/AIDS and the world of work

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First published 2006

ISBN 92-2-119070-6 and 978-92-2-119070-7 (print)
ISBN 92-2-119071-4 and 978-92-2-119071-4 (web pdf)

ILO publications can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO publications, International Labour Office, CH-1211 Geneva 22, Switzerland. Catalogues or lists of new publications are available free of charge from the above address, or by email: pubvente@ilo.org

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Photocomposition by the International labour Office DTP
Printed in Switzerland SRO

OF/ILO/271006

Acknowledgements

In 2004, the ILO produced global estimates of the impact of HIV/AIDS on workers and working-age populations: *HIV/AIDS: global estimates, impact and response 2004*. The estimates were based on the most recent data on global population from the United Nations, on HIV prevalence from UNAIDS and WHO, and from the ILO on labour force participation. This report renews the global estimates on the basis of new data available in 2006.

An interim report – *HIV/AIDS and work in a globalizing world 2005* – explored topics and issues at the intersection of the HIV/AIDS epidemic and the process of globalization. The value added by having a substantive focus was retained and the 2006 report also has a thematic approach to HIV/AIDS in the world of work, this time addressing the multiple damaging effects of the epidemic on children and youth who are the future generations of workers.

The role of the Director-General, Juan Somavia, continues to be critical to the ILO's investigation of HIV/AIDS in the world of work. The team is grateful for his continuing support and encouragement, as well as to Assane Diop, Executive Director of the Social Protection Sector, and Sophia Kisting, Director of ILO/AIDS.

Many staff in the ILO, colleagues in the United Nations Population Division, UNAIDS, WHO and experts in non-governmental organizations have been truly generous in this endeavour with their time and information. We especially wish to thank Anita Amorim, Marie-Madeleine Boiron, Igor Chernyshev, Yacouba Diallo, Oluremi Doherty, Cleopatra Doumbia-Henry, Sara Elder, Lorenzo Guarcello, Frank Hagemann, Lawrence Jeffrey Johnson, Steve Kapsos, Akky de Kort, Susan Leather, Farhad Mehran, Amanda Milligan, Henrik Moller, Tom Netter, Bob Pember, Christophe Perrin, Stephen Pursey, Furio Rosati, Amrita Sietaram, Sonia Smith, and Sylvester Young.

The team of authors comprised Ibrahima Coulibaly (impact on employment, and benefits of ARVs on productivity), Nadine Osseiran (consequences for children and youth), Karine Burdin Reverdy (legal and policy framework), Jag Sehgal (global estimates, survival benefits of ARVs and HIV vaccination), and Odile Frank, who conceived and coordinated the report, and drafted the overall text.

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Acronyms

AIDS	Acquired immunodeficiency syndrome
ARV(s)	Antiretroviral drugs, therapy, or treatment
CEACR	Committee of Experts on the Application of Conventions and Recommendations
CRC	Committee on the Rights of the Child
DHS	Demographic and Health Surveys
EI	Education International
EPZ	Export Processing Zone
FAO	Food and Agricultural Organization of the United Nations
GDP	Gross domestic product
GNI	Gross national income
HIV	Human immunodeficiency virus
HIPC	Heavily Indebted Poor Countries
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICFTU	International Confederation of Free Trade Unions
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labour Organization/International Labour Office
ILO/AIDS	ILO Programme on HIV/AIDS and the World of Work
IOE	International Organisation of Employers
IPEC	International Programme for the Elimination of Child Labour
IWFCL	Investigating the Worst Forms of Child Labour
LSMS	Living Standards Measurement Survey
MDG(s)	Millennium Development Goal(s)
MICS	Multiple Indicator Cluster Surveys
OHCHR	Office of the UN High Commissioner for Human Rights
ODA	Official Development Assistance
SIMPOC	Statistical Information and Monitoring Programme on Child Labour
SMAM	Singulate mean age at first marriage
STD(s)	Sexually transmitted disease(s)
STI(s)	Sexually transmitted infection(s)
UCW	Understanding Children's Work [An Inter-Agency Research Cooperation Project on Child Labour of the ILO, UNICEF and the World Bank Group]
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCRC	UN Convention on the Rights of the Child
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGASS	United Nations General Assembly in Special Session
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UYDEL	Uganda Youth Development Link
WHO	World Health Organization

Executive summary

By 2005, HIV prevalence in the 60 countries of the world most affected by the epidemic ranged from under 1 per cent to well over 30 per cent. African countries continue to bear the brunt of the epidemic: their average HIV prevalence was estimated at 6.4 per cent in adults aged 15 to 49 years, well above the global average of 1.4 per cent. The regional averages for the two other most affected developing regions – Latin America and the Caribbean, and Asia – are below 1 per cent.

UNAIDS estimated that by the end of 2005, there were 38.6 million persons living with HIV globally, of whom the vast majority – 36.3 million – were 15 years and over and thus of working age. On the basis of the most recent population data from the United Nations Population Division and the ILO's own latest estimates of labour force participation, the ILO assessed the current impact of the epidemic on the global labour force, and possible future impact on the labour force as well as on the global population of working age.

According to the ILO assessment, 24,560,000 labour force participants aged 15 to 64 years were living with HIV or with AIDS worldwide in 2005. The vast majority – nearly 67 per cent – lived in Africa. There were more than 1 million workers living with HIV/AIDS in five countries: Mozambique (1.4 million), Nigeria (1.8 million), South Africa (3.7 million), the United Republic of Tanzania (1.2 million) and Zimbabwe (1.1 million). In contrast, more than a million labour force participants are estimated to be living with HIV/AIDS in only one country outside Africa, in Asia where India has an estimated 3.9 million persons living with HIV/AIDS. Globally, 41 per cent of the labour force participants living with HIV are women, and in Africa, the proportion is even higher, at 43 per cent.

Furthermore, assuming that all adults and most youth are economically active to an extent and work in resource-poor settings – in particular in Africa – even if the sustenance they provide is not easily assessed in conventional economic terms, the total number of productive persons living with HIV/AIDS is greater than the number of labour force participants, and likely to be closer to the total number of working-age persons affected. Given that adults contribute in other ways to the economy, for example by raising children who will be the future labour force, it is important to take account of the impact of HIV on the entire adult population, especially in the case of women.

On this basis, the global estimate of 36.3 million working-age persons living with HIV represents more fully the impact of the epidemic on the world of work. Accordingly, over and above the estimated 24.6 million labour force participants who are living with HIV/AIDS, there are nearly 12 million more persons who are engaged in one or another form of productive activity, who are therefore economically productive to some degree, and who are living with HIV/AIDS.

The effects of the HIV epidemic on the labour force and on all persons of working age are measurable in their overall impact on economic growth and on employment growth. The ILO demonstrated in 2004, and again with more recent data in 2006, that the rate of economic growth in countries heavily affected by HIV/AIDS has been reduced by the epidemic's effects on labour supply, productivity and investment over the last decade or more. The ILO found in 2006 that 43 countries lost on average 0.5 percentage points of their economic growth rate every year between 1992 and 2004, and, among them, the 31 countries in Sub-Saharan Africa lost 0.7 percentage points of their average annual rate of economic growth. In this report, also, the ILO applied a model to estimate the impact on employment growth and found that the same 43 countries lost on average 0.3 percentage points in their rate of growth of employment annually over the same period due to the loss in economic growth. This amounts to an employment loss of 1.3 million every year. The 31 countries in Sub-Saharan Africa lost 0.5 percentage points of their average annual rate of employment growth, equivalent to an employment loss of 1.1 million per year for Africa alone.

But enterprises, households, families, communities and economies can benefit if workers with AIDS have access to effective antiretroviral drug therapy (ARVs). The ILO model in this report shows, for example, that a worker with AIDS given treatment in 2004 could have worked for 34 of the next 54 months on average worldwide, contributing as a result more than 7 times the global per capita income to the global economy for each 12 months the worker survived. Moreover, the benefit of ARVs would be greater for Africa: the average worker with AIDS could have survived 36 of the next 54 months, contributing 8 times the per capita income of Sub-Saharan Africa to the African economy for every 12 months the worker survived.

In reality, even at the current and anticipated rates of increase in access to ARVs, which are now included

in population projection models, the HIV epidemic continues to have a very damaging impact on the labour force. In 2005, more than 3 million labour force participants worldwide were partially or fully unable to work because of illness due to AIDS, and three-quarters of them lived in Sub-Saharan Africa. Moreover, the global number of labour force participants unable to work is expected to stabilize between now and 2020, and not yet decline, whereas it is expected to continue to increase in Africa, where slower growth of access to ARVs is projected.

Access to ARVs is woefully delayed in resource-poor settings, although there has been some progress in broadening access just in the last year, 2005. Projections of labour force participants who will become ill and die illustrate the expected demand for ARVs that will be newly arising, as well as allowing the calculation of the global cumulative demand for ARVs. Even if some of this demand is met by expanded access to ARVs, the figures underscore the urgent need to raise access to the very highest levels to avert the labour force losses otherwise projected.

For the time being, cumulative mortality losses to the global labour force are expected to continue to increase as a result of the impact of the HIV epidemic, from 28 million estimated for 2005 to 45 million projected by 2010, over 64 million projected for 2015, and nearly 86 million anticipated by 2020, despite projected increases in access to ARVs. Taking account of the global impact of the epidemic on all persons of working age, whereas 3.4 million working-age youth and adults died annually by 2005, the toll is expected to rise to 4.1 million by 2010, 4.4 million by 2015, and to reach 4.5 million by 2020, even with anticipated increases in access to ARVs. In developing regions, fewer deaths are expected to occur in Latin America and the Caribbean, but more deaths are projected in Asia and Sub-Saharan Africa.

As a result of HIV/AIDS, also, the economic burden to labour force participants and the social burden to adult household members are expected to continue to rise due to the combined impact of the illness and death of workers, especially in Sub-Saharan Africa. The economic burden on each labour force participant is expected to increase globally from 0.5 per cent to 1.7 per cent between 2005 and 2020, and from 4 per cent to 7.2 per cent in Sub-Saharan Africa over the same period. The social burden on each person of working age will increase similarly, reaching over 1 per cent globally in 2020, and 5.3 per cent in Sub-Saharan Africa.

The impact of the HIV epidemic is especially flagrant if one looks at the plight of children and youth, whose lives, hopes and future are blighted. Directly or indirectly, HIV/AIDS has life-threatening consequences for children if they are themselves born with HIV, lose one or both parents as a result of AIDS, or are exposed to the risk of HIV in the pursuit of survival, through engagement in the worst forms of child labour.

The future of the labour force is imperilled by the epidemic in the worst-affected countries as a result of these effects on children. This epidemic undermines the process of human capital formation. Deaths of children deprive families and societies of their potential contributions, drain their resources, and sap morale. Such deaths are brutal and de-humanizing. Generations of surviving orphans do not have the support, guidance and education they need to gain skills, pursue opportunities for decent work, and contribute to their societies and their economies. When children become orphans, they have already been exposed to the traumatizing experience of watching their parents become severely debilitated and die. The fact that there are children engaged in child labour, and children who are exposed to the risk of HIV in its worst forms in the battle for survival, contravenes every fundamental principle of social justice, flagrantly violates the rights of children, and demeans the human lot.

The sum of the impact of HIV/AIDS on children is reckoned in bleak statistics: the number of deaths of children, the number of orphans, the number of children engaged in child labour, and the number of children not in school. Nearly 2.3 million children now live with AIDS worldwide at any time, of whom more than 600,000 die each year. There are an estimated 15 million orphans in the world as a result of the death of one or both parents due to AIDS. In Sub-Saharan Africa alone, there are 12 million orphans, and their number is expected to rise to 20 million by 2010. The ILO has estimated that 191 million children were working worldwide in 2004, of whom 166 were in child labour, and 74 million performing hazardous work, without taking account of a further unknown number who were exploited in the worst forms of child labour – slavery, trafficking, exploitation in armed conflict, forced labour, prostitution, pornography, and illicit activities – that harm the health, safety or morals of children. Moreover, an estimated 115 million children were not in school in 2001-2002, and more than a third of primary school children fail to reach the last grade in more than 40 countries, which is a basic cause of illiteracy, whereas literacy skills are the basic tools to escape poverty.

But it is youth who as a group are at greatest risk from the HIV epidemic, for three reasons: young men and women are entering their working lives and as a group of workers have the least training and experience; young people are 2 to 3 times more likely than older adults to be unemployed; and at the same time, youth are starting off their adult sexual lives. Furthermore, many youth live in poverty. It is estimated that 200 million young people, or 18 per cent of all youth, live on less than US$1 per day, and 515 million on less than US$2 per day.

Youth represent only one quarter of the world's working-age population but account for nearly half of its unemployed. Young people also work in large numbers in the informal economy, which means they do not know decent work, are underemployed, work under precarious conditions and benefit from little or no social

protection and benefits. Youth experience among the worst conditions in the world of work. Studies often show that the majority of men and women who resorted to the sex industry for their livelihood began sex work in their teens or early 20s, and that in many parts of the world the large majority of sex workers are under 25 years of age.

These factors interact with the result that, according to the most recent data, young people account for half of all new HIV infections. An estimated 5,000 to 6,000 young persons acquire HIV each day. Moreover, the majority of young persons who are living with HIV do not know that they carry the virus, especially in resource-poor settings. The risks are greater for young women than for young men, as are the consequences. Surveys show that the knowledge level about HIV/AIDS is almost always higher in young men than in young women.

Poverty and HIV/AIDS have jointly significant consequences for their education, skills and employability, as youth living in households affected by HIV/AIDS work to support themselves and sick relatives and siblings, and school attendance becomes much more difficult. Without access to the education and training they need, the chances of finding work, especially decent work, are diminished when youth become adults. Young people living in AIDS-affected households often find out only later that decent jobs are unavailable or beyond their reach because of their earlier lack of education and training.

Inadequate skills and mismatched skills reduce employability, which increases the risk of marginalization and social exclusion for under-educated and under-trained youth, while it also undermines enterprise competitiveness. Yet one of the best solutions to social exclusion and the best forms of prevention against HIV is decent work, and the best way to access decent work is through education with the appropriate training and skills. The challenge is to find alternatives when formal education and training systems do not reach marginalized and disadvantaged youth, including youth who have dropped out of school, and who may be affected by HIV/AIDS. Out-of-school training is a very important means to help youth qualify for jobs, giving opportunities for education, skills training and micro-credit, among other interventions. Importantly, out-of-school structures also make it possible to convey HIV prevention messages and information for youth who are at high risk, but who are hard to reach. The high risk of HIV to which disadvantaged youth are exposed calls for tailored responses from the world of work.

Addressing the impact of child labour on youth unemployment is crucial to elaborate long-term strategies both for the elimination of child labour and for the preparation for entry into the labour market of youth at the appropriate age, and to elaborate national policies to reduce youth unemployment. In principle, the removal of children from child labour requires fostering alternative means to encourage the creation of jobs, increase labour productivity and raise wages for young people, as well as provision of alternative assistance to the current generation of children, enabling them to strengthen their work skills in the long run. Unemployed youth cannot replace child labour in many cases, but the potential to re-orient the demand for labour away from children and towards youth is a compelling priority that cries for attention and deserves thorough examination.

The objectives of the response from governments to the impact of HIV/AIDS on children and youth is to strengthen understanding of all the human rights of children in the context of HIV/AIDS; to promote the realization of the human rights of children, in the context of HIV/AIDS, as guaranteed under the Convention on the Rights of the Child; and to contribute to the formulation and promotion of child-oriented plans of action, laws, and policies to combat the transmission and mitigate the impact of HIV/AIDS at the national and international levels.

Accordingly the current framework to protect children's rights is comprised of legal instruments that regulate their lawful entry into the world of work, their access to education, and their fundamental rights. Notable are the ILO Convention No. 138 (1973) that regulates the minimum age for admission to work or employment, and the ILO Convention No. 182 (1999) that prohibits and seeks to eliminate the worst forms of child labour.

Consequently, there is an array of legal protection that has yet to be forcefully implemented to relieve children and youth of the extraordinary harm befalling them due to HIV/AIDS. Whereas efforts are concentrated on controlling the epidemic through intense and comprehensive programmes, including universal access to treatment, far greater attention must be paid to protecting and building the human capital of children and youth which is the foundation for a world with – or without – AIDS.

These projections for 2006 continue to argue loudly for comprehensive workplace action against HIV/AIDS, especially in the developing regions of Africa and Asia. The ILO upholds the principle and contributes to the UNAIDS strategy of universal access to antiretroviral medication (ARVs). Workers will continue to become ill in large numbers for many years to come, and increasing numbers of workers will require access to treatment as those who start treatment survive in larger numbers. Access to ARVs in the workplace must rise substantially not only to achieve the increased survival of workers anticipated by the projections, but to reach beyond those objectives to achieve truly universal treatment for all the workers who need it.

To document the benefits to the world of work from a more vigorous response to HIV/AIDS, notably in stepped-up efforts to expand access to ARVs, the ILO presents two new projections in this 2006 report. First, recognizing the growing will to implement universal access, the ILO has also projected the potential survival of labour force participants were they to have universal

access to ARVs, taking account of different levels of treatment continuation rates. Second, the ILO has projected the benefits that would accrue from a totally effective and universally available HIV vaccine.

The ILO projections of access to treatment suggest that survival of labour force participants will increase substantially with access to ARVs, and even more so if their adherence to treatment is high. Assuming that treatment is initiated in 2006 for all workers with advanced AIDS and each year new workers are added to the treatment pool, 2.5 million workers would be alive globally at the end of 2010 who would otherwise have died, if 80 per cent of workers continue the treatment each year, and 3.7 million workers would be alive globally by the end of 2010 who would otherwise have died, if 93 per cent of workers continue the treatment each year. The largest share of benefit from access of workers to ARVs would accrue to Africa, where 1.8 million workers would have survived in 2010 at 80 per cent adherence, and 2.6 million at 93 per cent adherence.

Similarly, the advent of a vaccine would save many lives of labour force participants who are not yet HIV-positive. If universal and fully effective vaccination were initiated in 2006, 3 per cent of workers' lives would be saved after 4 years, by 2010; over 11 per cent of workers' lives would be saved after 9 years, by 2015; and over 28 per cent of workers' lives would be saved after 14 years, by 2020. A greater proportion of lives would be saved in the regions where the epidemic matured (or is expected to mature) later. In Sub-Saharan Africa, where many workers are already HIV-positive, the gain by 2020 will be over 24 per cent of workers who would otherwise die. In Asia, where the path of the epidemic implies a later peak, the gain by 2020 will be over 41 per cent, because it is still possible to prevent the transmission of HIV to a large proportion of the labour force currently projected to become HIV-positive.

The projections suggest that an intervention such as instantaneous, universal and effective vaccination would contribute substantially to stemming losses to the global labour force that are projected to occur because of the path of the epidemic. The intervention would especially benefit the regions with later epidemics, and women where much of the growth in heterosexual transmission still lies ahead. Nevertheless, the intervention cannot have an effect on stemming the inevitable losses to the labour force that are the inherent result of HIV transmission that has already occurred. The negative momentum of the epidemic is now so great that even with effective intervention over 70 per cent of the labour force losses currently projected may come about globally by 2020, notwithstanding increased access to ARVs. To save those lives, a more uncompromising and deliberate path to universal access to ARVs must be forged without delay and without reserve.

In sum, the vaccination scenario comprises one critical part of the most optimistic scenario for the labour force. The other critical parts of the optimistic scenario are intensification of prevention to control the number of workers becoming HIV-positive worldwide – most particularly in regions where much of the epidemic and HIV transmission lie ahead – and fundamental, rapid expansion of access to treatment for the millions already living with HIV.

These new analyses show clearly that both prevention and treatment can bring significant benefits to the global labour force and the world of work, even if prevention is too late for millions of persons already living with HIV. At least there is hope for the future for persons already living with HIV. Each labour force life preserved represents a potential productive gain for enterprises, the public sector – in particular health, education, and public services more generally – the household and the family, especially children, as well as recognition of the fundamental rights of each and every working man and woman.

Introduction

This report provides estimates by the ILO of the impact of HIV and AIDS on the labour force, men and women of working-age, youth and children in a set of tabulations presented at the end in Main tables 1 to 11. The estimates and projections in these tables are based on three types of data. The most readily available data are the population base by age and sex from the United Nations Population Division; HIV prevalence estimates from UNAIDS and WHO; and regular updates of global estimates of labour force participation from the ILO. Second, the new measures developed to illustrate the impact of HIV/AIDS on the world of work and first utilized in *HIV/AIDS and work: global estimates, impact and response 2004*, were applied to the new 2006 data. Finally, measures were elaborated on the basis of new dimensions of the HIV epidemic – notably access to antiretroviral therapy, and hypothetical advent of an HIV vaccination – to illustrate their potential benefits in the world of work.

This report is designed to offer a full update of global estimates of the impact of the HIV epidemic on the world or work. In addition, the report focuses on the critical plight of children and young people caught in the epidemic who seek to survive in dignity and hope with dying parents, and to cope with orphanhood, inadequate schooling, child labour and youth unemployment in the midst of relentless poverty.

The opening chapter provides an overview of the information conveyed in the Main tables, covering the impact of HIV/AIDS on the labour force, the working-age population, and on youth and children in reference to the world of work, and offering a summary of key observations (Chapter 1). Next, the report explores two important economic issues: the damaging impact that HIV/AIDS has had on employment growth, flaunting efforts to address poverty eradication through job creation and access to decent work, and the potential benefits of antiretroviral therapy for workers living with HIV and AIDS (Chapter 2). In Chapter 3, the report provides an overview of the consequences of HIV/AIDS for children in the world of work: the epidemic propels them into labour too early, and robs them of the time and skills to prepare for a life of decent work. The harmful effects of the epidemic on youth are reviewed in Chapter 4, highlighting the extraordinary risk of exposure to HIV of large numbers of unemployed youth in resource-poor settings. Finally, Chapter 5 presents the array of legal protection that has yet to be forcefully implemented to relieve children and youth of the extraordinary harm befalling them due to HIV/AIDS. Whereas all efforts are concentrated on controlling the epidemic through intense and comprehensive programmes, including universal access to treatment, attention must be paid to protecting and building this human capital which is the foundation for a world with or without AIDS.

A note on HIV prevalence estimates

Since the publication of *HIV/AIDS and work: global estimates, impact and response 2004*, UNAIDS and WHO updated procedures for the estimation of HIV prevalence and published new estimates, and the United Nations published new population estimates and projections that take account of AIDS mortality and the benefits of antiretroviral treatment.

The most recent HIV prevalence estimates appear in the *2006 Report on the global AIDS epidemic* (UNAIDS, 2006b). In several countries, the estimates show a decline in HIV prevalence relative to the levels reported in 2005. In most cases, the decline is apparent, being largely due to the revised methodology and estimates. In a few cases, however, genuine decline is the more likely explanation (for example, Kenya, Burkina Faso and Zimbabwe in Africa).

As a result, the HIV prevalence levels implicit in the population projections of the United Nations for populations with AIDS utilized in the Main tables of this report may show discrepancies with the 2006 UNAIDS estimates, because they were prepared in the interim (United Nations, 2005a). In a few cases – for example, Botswana, Burkina Faso, and Benin – the prevalence estimates may be substantially different. These differences will be observed at the level of the data for the individual countries, but are imperceptible at the regional and global levels, because of low population weight overall.

Similarly, the mortality impact on working-age persons estimated by the ILO on the basis of the United Nations' projections (3.4 million) appears slightly higher than the most recent UNAIDS/WHO estimate of deaths in 2005 that appeared in 2006 (range of estimates 2.4-3.3 million). The difference in mortality is partly due to the reduction in HIV prevalence in some countries and is indicative of the opportunities that lie ahead, and of the benefits that will accrue and become more visible as prevalence rates decline further.

The HIV prevalence estimates provided in *HIV/AIDS and work: global estimates, impact and response 2004*, should not be directly compared with the HIV prevalence estimates provided in this report, for example, to draw conclusions about trends over time. This report for 2006 should be read as a stand-alone overview of the current impact of HIV/AIDS in the world of work.

Chapter 1. Global estimates: overview of Main tables

By 2005, HIV prevalence in the 60 countries of the world most affected by the epidemic is estimated to have ranged from under 1 per cent to well over 30 per cent. The majority of countries affected are still for the most part in Africa, which has a regional average HIV prevalence of 6.4 per cent in adults 15 to 49 years, well above the global average of 1.4 per cent. The regional averages for the two other most affected developing regions – Latin America and the Caribbean, and Asia – are below 1 per cent.

The estimated HIV prevalence in the adult population in the 60 countries affected is presented for each country in alphabetical order by region in each Main table, and all other data in the Main tables are provided in that order.[1] Main tables 1 to 11 address HIV in relation to a number of issues central to the world of work. For each Main table, a summary table presents the regional average HIV prevalence weighted by population for the regions of Sub-Saharan Africa, Asia, Latin America and the Caribbean, and for countries from the more developed regions, as well as a summary by region of the other information in the Main table, wherever appropriate. The sources for the estimates, projections and other data in the Main tables and their summaries are provided in the section *technical notes* at the end of the report. The range of consequences of HIV/AIDS is explored and discussed in Chapters 2, 3, and 4.

Main table 1: Basic data on HIV/AIDS, the labour force, population, age groups and dependency

Main table 1 sets out estimates of basic aspects of the population and the labour force in relation to HIV/AIDS. The table is included to provide background demographic information on all the countries, such as basic data on the dependency ratio for each country that is utilized for the estimation of the added economic and social burden due to the illness and deaths caused by HIV/AIDS (see Main tables 8A, 8B, and 8C).[2]

In addition, the table presents the ILO's estimates of the labour force of men and women aged 15 to 64 years living with HIV/AIDS. The labour force refers to the sum of persons who are economically active – which encompasses all persons in paid employment, gainful self-employment, or unpaid family work – and who are available and seeking work. The labour force is quantified by summing the products of labour force participation rates estimated by the ILO for each age and sex group and the population weights of those groups.

According to the estimates shown, between 24 and 25 million labour force participants aged between 15 and 64 years were living with HIV or with AIDS worldwide in 2005 (24,560,000 workers). The vast majority – nearly 67 per cent – lived in Africa, and the proportion would be higher if labour force participation rates were greater in Africa. Globally, 41 per cent of the labour force participants living with HIV are women, and in Africa an even higher proportion – 43 per cent – are women.

There are more than 1 million labour force participants aged 15 to 64 years living with HIV/AIDS in five countries: Mozambique (1.4 million), Nigeria (1.8 million), South Africa (3.7 million), the United Republic of Tanzania (1.2 million) and Zimbabwe (1.1 million). In contrast, more than a million labour force participants are estimated to be living with HIV/AIDS in only one country outside Africa, in Asia (India has an estimated 3.9 million persons living with HIV/AIDS).

To the extent that labour force participation is more difficult to measure in countries that have large informal economies, which is the case for many countries affected by HIV/AIDS, there are no clear boundaries between persons defined as economically active and those who are not. It can be assumed in most such settings that all adults and most youth work; they are economically active and contribute in some measure, even if the sustenance or livelihood they provide cannot be easily characterized or measured in conventional economic terms. This is especially true in the case of women.

Based on this approach, new estimates made by UNAIDS and WHO of all adults 15 years and over living with HIV provide a ready global estimate of 36.3 million working-age persons living with HIV. This implies that over and above the estimated 24.6 million labour force participants who are living with HIV/AIDS, there are nearly 12 million more persons who are engaged in one form or another of productive activity, who are therefore economically productive to some degree and are living with HIV/AIDS.[3]

> *... over and above the estimated 24.6 million labour force participants who are living with HIV/AIDS, there are nearly 12 million more*

persons ... engaged in one form or another of productive activity ... and living with HIV/AIDS.

These two estimates – 24.6 million labour force participants and 36.3 million working-age persons living with HIV/AIDS – are the basis for the ILO's sustained concern for the issue of HIV/AIDS in the world of work. The ILO's attention to HIV/AIDS is directed to all the age groups of the labour force and to the population of working age of both sexes. This means that young men and women of 15 to 24 years are encompassed by its concern, and these are the population groups which globally have among the highest rates of new HIV acquisition, yet they represent the immediate future of the world's labour force aged between 25 and 64 years.

Immediately behind youth, the global population of children is growing up and needs unfettered access to education to create the next waves of the labour force. Yet that population is already affected by HIV/AIDS – either directly through transmission at birth, or indirectly because they are living with the consequences of the illness and death of their parents and guardians. The children under 15 years living in the 60 countries most affected by HIV/AIDS number over 1 billion, and a one third of them – over 300 million children – live in the most affected countries in Sub-Saharan Africa. The consequences for youth and for children of the HIV/AIDS epidemic are discussed in Chapters 3 and 4.

Main table 2: Estimated economic impact of HIV/AIDS: economic growth lost and employment growth forfeited, and estimated labour productivity gains attributable to antiretroviral therapy

In 2004, the ILO presented estimates of the impact of HIV/AIDS on economic growth – notably on the rate of growth of GDP and GDP per capita in per cent and in $US terms that was forfeited due to the epidemic – in 47 countries that were among the most highly affected and for which there were data at the time.

In the first part of Main table 2, the ILO provides an update of that economic analysis, coupled with new findings that underscore the impact of the epidemic on employment. The annual loss in the rate of growth of GDP that was attributable to HIV/AIDS for the period 1992-2004 was used to estimate the average annual rate of growth of employment forfeited that was attributable to the epidemic over the same period. The employment forfeited is central to the ILO's concerns, and to the important role of access to decent work in poverty eradication. The table furthermore presents estimates of the forfeited employment in absolute numbers. The table is further explained and discussed in Chapter 2.

The table indicates that the employment growth forfeited in Sub-Saharan Africa is likely to have been on the scale of 1 million jobs [4] on average per year over the period studied, as a result of losing economic growth to HIV/AIDS. The losses in Sub-Saharan Africa are by far the most damaging, not only because it is the region hardest hit by HIV/AIDS, but also because employment in Africa is highly elastic in its response to changes in economic growth, and losses in the rate of economic growth of even small magnitude make a large difference.

Accordingly, the contribution of Africa's loss to the global loss in employment is the largest, accounting for over 80 per cent of employment growth forfeited worldwide. Asia accounts for 8 per cent of lost growth in employment, and Latin America and the Caribbean for 7 per cent.

The loss in employment is a critical hardship for the entire labour force, but it is especially damaging to children and youth in a world with HIV/AIDS, because both employers and households resort to child labour, as a substitute for providing decent work and when household resources are tight as a result of the epidemic. This harms children because its worst forms include the sexual exploitation and prostitution of children that directly exposes them to HIV. It harms youth who need to find decent work when they are ready to enter into their working lives; in the absence of employment opportunities, they are compelled by need to accept work that may be degrading, dangerous or dirty, including the worst forms of labour and exposing themselves to sexual exploitation and the risk of HIV. These issues are addressed in Chapters 3 and 4.

The second part of Main table 2 shows the beneficial economic effects of access to treatment with antiretroviral drugs (ARVs) according to three scenarios, which are also explained and discussed in Chapter 2. The overall outcome was found to be positive and encouraging. Even if the average worker manages to work only half as much as she or he did earlier once on ARV treatment (see least favourable scenario), there are measurable gains in months per worker, and in the productivity of the worker in dollar terms due to his or her survival thanks to treatment. If the worker is able to fully regain his or her ability to work, the gains can be counted in years, and largely exceed the national income per capita in dollar terms because members of the labour force make the largest contribution to national income in each economy, and antiretroviral therapy safeguards that contribution.

The survival of labour force participants is critical to preserving economic growth and achieving sustainable development, but it is also fundamental to the wellbeing and healthy development of their children, who rely on them for guidance, education and material support. The estimated productivity gained due to ARV treatment represents an enormous collective income for households with children as well as a contribution to the economy. In the absence of that income, a commensurate number of children will become impoverished, lose access to school, and have to seek work to survive, thereby facing the risk of child labour. Similarly, youth in affected households otherwise face the risks of early school-leaving, precociously taking on adult responsibilities, and falling on default choices that expose them to HIV transmission, including sexual exploitation, and labour associated with abuse and violence. These issues are further addressed in Chapters 3 and 4.

Main table 3: Children: projected mortality, latest school enrolment, experience of HIV/AIDS and labour of children, and HIV/AIDS prevalence of the parental/guardian generation

Main table 3 displays a range of relevant information on children under 15 years, including their mortality, school enrolment, direct and indirect exposure to HIV/AIDS, and exposure to child labour. The toll of HIV/AIDS on children has several dimensions: the numbers of children living with HIV, the numbers of children who are dying, and the numbers of children who are orphaned or caring for dying parents. A widely shared concern for these childhood destinies is clearly central to the analysis presented in this report. The situation of children is also viewed, however, against the backdrop of their access to education and their exposure to the world of work, which are specific concerns of the ILO. The impact of the HIV epidemic is manifest as a restraining influence on children's access to school and a driving influence on children's premature entry into work, particularly in Sub-Saharan Africa. These issues are discussed in Chapter 3.

UNAIDS estimates that about 2.3 million children were living with HIV/AIDS worldwide in 2005, and the table shows that the country estimates of numbers of children living with HIV/AIDS for the 60 worst-affected countries included in this report total over 2.1 million, representing the bulk of the global problem. Children do not survive AIDS very long without treatment, and the annual death toll for children is staggering, having reached 600,000 in 2005. Among the total deaths estimated for all children under 15 years, half are deaths of children under 5 years. It is thus estimated that nearly one third of children living with AIDS are dying every year at present, 80 per cent of them in Sub-Saharan Africa.

Children have nevertheless benefited to some degree from access to antiretroviral treatment in the last few years. The most recent reports of ARV coverage indicate that about 810,000 persons were receiving ARVs by December 2005 in Sub-Saharan Africa, of whom about 7 per cent were children.[5] Accordingly, 57,000 children were receiving treatment in 2005, which is equivalent to about 3 per cent of the total 1.9 million children living with AIDS in Sub-Saharan Africa.[6] If the number of children treated is compared to the numbers of children estimated to have died of AIDS in Africa in 2005 – about 487,000 children – the equivalent proportion treated approaches 12 per cent. This would indicate that with current treatment levels, the death toll may still exceed 400,000 children in 2006, unless very vigorous expansion of access to ARVs takes place, and there are determined efforts to include children.

HIV/AIDS is also life-threatening to children because millions of parents die as a result of AIDS each year. The number of orphans is estimated to be 12 million in Sub-Saharan Africa alone. The damage that parental loss inflicts in the short and the longer term is explored in Chapters 3 and 4. Of particular concern to the ILO constituents are the wide-ranging harmful effects of orphanhood on the growth of human capital and expansion of access to decent work, because orphans lose access to education and to schooling, become underskilled and underemployed workers, and can be exploited in child labour.

Accordingly, Main table 3 presents estimated proportions of children working for all the countries in which the ILO's International Programme for the Elimination of Child Labour (IPEC) and its Statistical Information and Monitoring Programme on Child Labour (SIMPOC) has conducted surveys and assessments. In addition, data are presented for the countries under study where other surveys have produced similar data, after having been adjusted for comparability.[7] Also presented are the estimated proportions of working children who work only, and those who both work and attend school.

Large proportions of children under 15 years are working worldwide. Furthermore, the data in Main table 3 indicate that whereas the proportion of children who work and *only* work (without access to school) is high globally, a large proportion of children who are working are also enrolled in school. Many working children combine school and work: in 10 of the 38 countries, 80 per cent and more working children attend school, and in 20 countries 50 per cent or more attend school. Generally, the proportion of children attending school is greater where the overall proportion of children working is lower. For example, in only 4 of the 10 countries with the largest proportions of children working and attending school – Cambodia, Guyana, South Africa and Togo – are there high proportions of children working overall (range 23 to 52 per cent), whereas the proportions of working children in the 6 remaining countries with high proportions at school have a far lower range (2 to 14 per cent). On the other hand, in 11 of the 13 countries where 40 per cent or more children work, a minority of working children attend school (the exceptions are Cambodia in Asia and Togo in Africa).

Consequently, even if many children who are working also apparently have access to school, there are nevertheless 40 per cent or more children working and *only* working in 60 per cent of the countries affected by the HIV/AIDS epidemic; they comprise 23 of the 38 countries affected by the epidemic and 21 of them are in Sub-Saharan Africa (the other two are India and Honduras). The African region not only has among the highest proportions of children working, but it is also the region where working children who also attend school are more often in a minority when compared to other regions, even where the overall proportion of children working is at similar levels.

It is also possible to delineate the sectors in which children work on the basis of some of the surveys available, although the data are unadjusted and are not displayed in the Main table. Table 1 below shows that in 15 of the 16 countries for which there are data, most children work in agriculture. The distribution of working children by sector varies, however, according to their sex. In Brazil, Ghana, Guatemala and Honduras, for example, the proportion of working girls in agriculture

Table 1. Working children by sector, selected countries in Sub-Saharan Africa, Asia, and Latin America and the Caribbean, various years

Country (in alphabetical order)	Year	Distribution of working children aged 7 to 14 years by sector*					
		Agriculture		Manufacturing		Services	
		Boys	Girls	Boys	Girls	Boys	Girls
Angola	1995	5.7	7.9	6.2	8.4	82.4	79.9
Brazil	2003	64.3	49.8	6.5	9.1	26.8	40.9
Burkina Faso	1998	98.0	98.2	0.6	0.5	1.3	1.2
Cambodia	2001	78.5	73.6	4.7	5.4	15.7	20.4
Cameroon	2001	90.4	86.3	1.9	2.3	5.1	8.8
Ethiopia	2001	96.5	88.7	0.5	2.8	2.5	6.2
Ghana	2000	81.0	59.1	4.5	7.6	13.8	32.0
Guatemala	2000	74.5	39.8	5.9	20.1	14.7	40.0
Honduras	2002	73.6	19.8	5.9	24.4	18.6	55.7
India	2000	70.5	76.7	10.0	15.4	15.9	6.5
Kenya	1999	87.3	74.4	2.5	0.3	8.8	25.3
Madagascar	2001	94.1	93.9	0.6	1.4	2.0	2.9
Namibia	1999	91.5	91.7	0.4	0.4	8.1	8.0
Tanzania	2001	83.5	73.1	0.1	0.2	16.3	26.7
Uganda	2002	94.3	92.3	1.5	1.3	3.2	6.0
Zambia	1999	92.7	88.1	0.3	0.8	6.6	11.0

* May not total 100 per cent for either or both sexes, as residual proportions are in other sectors of work (not shown).
Source: UCW, 2006.

is smaller than that of working boys, whereas the proportion of girls working in manufacturing is greater than of boys. In most countries, the proportion of working girls in manufacturing is greater than the proportion of boys, with the notable exception of Kenya. Similarly, in most countries the proportion of working girls in services is the same as, or greater than the proportion of working boys, with the notable exception of India.

Estimates of the numbers of children working in the 60 countries under study were derived from the proportions of working children given in Main table 3 and are presented in Chapter 3. Furthermore, the nature and extent of children's work and its implications for future human capital, access to decent work, and prospects for sustainable development are discussed in Chapters 3 and 4.

Main table 4: Youth: estimated impact of HIV/AIDS, demographic aspects, legal ages, labour force participation, and education and training

Main table 4 complements Main table 3 for children and provides a range of information on youth that is relevant to their place in the world of work in the context of HIV/AIDS. The table first presents the newly available UNAIDS estimates of HIV prevalence rates in young men and young women in Sub-Saharan Africa, as well as the rates in young pregnant women in capital cities where available. The rates for young men and women aged 15 to 24 years show clearly the higher prevalence rates estimated for young women, which are in many cases several times greater than the rates in young men. The prevalence rate for young women is more than twice that for young men across the region, with the one exception of Madagascar, where the prevalence in young men is twice the prevalence in young women, and the United Republic of Tanzania, where prevalence in young women is less than one and a half times the prevalence in young men. At the extreme, in Ghana and Kenya, the prevalence rate in young women is estimated to be more than 5 times the rate in young men.

The table then provides basic demographic information on youth, including their numbers in 2005, and a measure of the average age at marriage of young women (singulate mean age at first marriage, or SMAM) for the latest available year, which ranges widely, from 1986 to 2001, according to country, and is therefore provided as background only.

Next, the table presents the legal ages at status changes in the 60 countries that are most affected by HIV/AIDS. These include the age at the end of compulsory schooling, the age of sexual consent where available, the minimum age at marriage, and the legal minimum age in order to work. These data display the legal framework that defines the transition from childhood to adulthood in the areas of schooling, marriage and work, which generally takes place in late adolescence. The age at majority is not shown, because in-

creasingly there is little variation between countries around the 18-year mark.

Clearly the legal framework is only one backdrop to the conduct of daily life, and actual behaviour is influenced by a range of economic, social and cultural considerations. Nevertheless, to the extent that the legal framework is an expression of societal norms and serves as one guide to behaviour, some interesting observations can be drawn. For example, for young women in the 21 countries where both an age of sexual consent and a minimum age at marriage are provided, in 13 countries the age of sexual consent precedes the minimum age at marriage; in 6 countries, the ages are the same; and in two countries, surprisingly, the minimum age at marriage is lower than the age of consent. To the extent that such ages are defined by different legal instruments and arose at different epochs, such discrepancies are understandable. It may be useful to countries, nevertheless, to examine these types of questions, which can give rise to valuable discussions regarding the norms and values of the society with respect to the transition of young persons into adulthood. Such discussions can serve to build the foundation to achieve national stakeholder consensus with respect to policies to address HIV/AIDS in youth.

Similarly, among the 34 countries with data on age at the end of compulsory schooling and minimum age at marriage, young women can legally marry between 1 and 8 years after compulsory schooling in 25 countries, most frequently 2, 3 and 4 years afterward, and can legally marry at the same age as the end of schooling in a further 5 countries. In an ideal situation, later marriage would mean that the young women are able to prolong their education beyond the compulsory school years. In resource-poor settings, however, few such educational opportunities are available or pursued, and logically young women enter the world of work in largest numbers at that point, if they have not already done so. A glance at the singulate mean age at marriage, although not a reflection of the most recent trends in the age at marriage, suggests that marriage is still being pursued as an option at a young age (it is also likely that in many countries, measurable proportions of young women are marrying under the legal minimum age). Finally, in as many as 4 of the 34 countries, the minimum legal age at marriage is lower than the legal school-leaving age by 1, 2 or 3 years, and in these cases, it is likely that a discussion on the discrepancy and alignment of minimum ages, in particular for young women, could serve a useful normative purpose.

Data available for 40 countries make it possible to look at the transition from school-leaving to work, by comparing the age at the end of compulsory schooling and the minimum age at work, and this comparison also yields a range of situations. In one third of countries (14 countries) the legal minimum age to work is 1 to 4 years older than the end of compulsory schooling. This implies that children are expected in principle to continue in school or training beyond the school-leaving age before they can legally enter the world of work as young men and women, or that they are subjected to an enforced period of idleness. Yet many of these countries are resource-poor, which points to the probability that many children are in reality entering the world of work prematurely. In another one third of countries (13 countries), the school-leaving age and legal age at work are aligned, more often at 14 (5 countries) or at 15 (5 countries) than at 16 (3 countries) years. In the final one third of countries (13 countries), the legal minimum age in order to work *precedes* the legal school-leaving age by 1 or 2 years. This observation lends support to assessments that in many resource-poor settings children are in reality at work full time when they should be at school, and underscores the urgent need to address the global issue of child labour, explored in detail in Chapter 3 and underlined in Chapter 5 below. Although the problem of child labour derives in small measure from such discrepancies in national legal frameworks, they are nonetheless standard-setting, and it may be useful for stakeholder discussions to take place on how they arose, their implications for addressing underage work in the context of HIV/AIDS, and the potential to revise them.

The remaining columns of Main table 4 display the labour force activity rates for youth against the backdrop of their levels of literacy and school enrolment. The data in the table point to the high levels of labour force participation in many countries – even for 15 to 19 year-olds, and the great variability in access to upper secondary education, which ranges in Africa alone from under 20 per cent in 15 countries to better than 50 per cent in 2 countries. These columns also show the range in estimated literacy levels, which are most often lower for young women, in particular where literacy rates are low overall.

These observations and the range of issues concerning the high risk of exposure to HIV/AIDS of youth are explored in Chapter 4, and the legal and policy framework is reviewed in Chapter 5.

Main tables 5A and 5B: Estimated and projected impact of HIV/AIDS on the labour force due to Stages III and IV of AIDS

Main tables 5A and 5B show the impact of HIV/AIDS on the labour force at four points: in 2005, 2010, 2015 and 2020. The tables illustrate the impact of the loss of capacity to work due to the physical (and mental) deterioration that AIDS causes prior to death. In the absence of treatment, persons living with HIV become unable to work at some point after the onset of AIDS symptoms. The inability is at first intermittent and then increases until persons living with AIDS are entirely unable to work.[8] In most settings, persons living with HIV/AIDS cease to be economically active, drop out of the labour force as a result, and eventually lose all capacity for productive activity, including in the informal economy and in the home.

In *HIV/AIDS and work: global estimates, impact and response 2004*, the ILO had presented the impact of AIDS according to three durations for partial and full inability to work. As the analysis was being carried out

and presented for the first time, the intention was to fully document the phenomenon taking account of the variability in survival after onset of AIDS cited in the literature available in the early 2000s. At the outcome of the exercise, it became clear that the differences were not great overall. The shortest duration was closest to the consensus emerging from successive meta-analyses of the data available on survival after onset of AIDS, prior to the advent of effective antiretroviral therapy. Accordingly, a single duration of 12 months was selected to illustrate the impact as clearly and succinctly as possible.

The selected duration of 12 months of survival from diagnosis of AIDS comprises a 9-month period for clinical Stage III of HIV and AIDS, with consequent partial inability to work, and a 3-month period for clinical Stage IV entailing complete inability to work.[9] This approach results in a survival duration in the absence of treatment that is, moreover, consistent with the mortality assumptions underlying the United Nations' most recent revision of world population prospects. In their projections, the United Nations assumes that mean survival after progression to AIDS is 1 year in the absence of treatment.

A second major feature of the labour force projections in Main tables 5A and 5B is that increased survival due to access to antiretroviral medication (ARVs) is incorporated into the mortality projections that underlie them. Access to ARVs is expected to rise to a national coverage rate ranging between 40 and 85 per cent, depending on the coverage estimated by WHO at the end of 2004 in each case.

Access to ARVs is woefully delayed in resource-poor settings, although there has been some progress in broadening access, especially in 2005. The most recent reports of coverage indicate that about 810,000 persons were receiving ARVs by December 2005 in Sub-Saharan Africa, the region with by far the greatest demand for treatment. This amounted to 1 in every 6 persons who needed treatment receiving the medication. The average proportion of all persons receiving ARVs who are children was estimated to be about 7 per cent (range 3 to 11 per cent in 14 Sub-Saharan countries). This indicates that about 750,000 persons of working age were receiving ARVs in the region, somewhat fewer than 1 in 6 of all persons in need of treatment (1 per 6.5 persons).

This number of working-age persons with access to ARVs is actually greater than the number of labour force participants estimated by the ILO to have become fully unable to work in Sub-Saharan Africa in 2005 (about 592,000 in Main table 5A Summary).[10] The labour force is, however, only a portion of the total adult population in the region (under 69 per cent in 2005 and 2006). Also, it cannot be assumed that eligibility criteria are perfectly met in access to ARVs and that consequently the sickest workers are receiving treatment. Moreover, an unknown proportion of persons who are partially unable to work are eligible and should already have access to ARVs.

Indeed, just as the mortality of workers has been beneficially influenced by the advent of ARVs, it can be assumed that a number of workers who are in Stages III and IV and have become partially or totally unable to work will also benefit from treatment. In many cases they will regain their ability to work, even if as yet little is known about the return to physical activity and work of persons treated with ARVs, particularly in the African context.

Consequently, the projected number of labour force participants who are partially and fully unable to work represents the projected *demand* for ARVs from workers that will arise up to the horizon of 2020. If the numbers of workers entering Stages III and IV were calculated by year and cumulated over the entire projection period, the total would provide an estimate of the *total cumulated demand for treatment from labour force participants by 2020*. Calculating such a hypothetical number of workers – which would exceed 55 million according to current projections – would entail a series of difficult assumptions. They include that all workers from now on have access to ARVs and show high compliance with and adherence to the treatment regimen, that mortality due to other causes as well as to AIDS itself will gradually improve throughout the period (at neither slower nor faster rates than those projected by the United Nations in 2005 for the moment), and that the path of the epidemic will follow current expectations (in particular with respect to levels of prevention, and feedback effects on future HIV transmission of widespread access to treatment).

In view of the weakness of such projections, it is inappropriate to extrapolate long-term cumulated demand from the labour force for ARVs. Nevertheless, it remains that Main tables 5A and 5B show the levels of demand for ARVs *newly arising* between now and 2020. Some proportion of that demand will undoubtedly be met by the expansion of access to ARVs, and it is urgent that access should rise to the highest levels possible in order to avert the labour force losses that are projected at the currently anticipated rate of increase in ARV access (see Main table 6 below). Furthermore, even if long-term projections of cumulated labour force demand for ARVs are not now feasible, Main tables 9A and 9B below display projections of the 5-year survival of labour force participants in Stage IV of AIDS. They are designed to illustrate the potential gains from widespread access to treatment in the world of work over a manageable, short-term horizon.

Against this background, Main table 5A shows that by 2005, over 800,000 labour force participants worldwide were at any time fully unable to work, most of them in Africa. Altogether, 3.2 million labour force participants were already either partially or fully unable to work in the 60 countries of the world most affected by the HIV epidemic, and they represent the large majority in need of ARV therapy.

Taking account of increased survival and projected increases in ARV coverage, the number of labour force

participants who become either partially or fully unable to work and who will require ARV treatment is expected to rise to about 3.9 million in 2010 and thereafter to stabilize at about 4.1 million in 2015 and 2020 (Main tables 5A and 5B).

Owing to differences in their HIV epidemics and projected ARV coverage, there are substantial differences by region. In Sub-Saharan Africa, the number of labour force participants newly unable to work is expected to increase, albeit at a slowing rate, until 2020. This projection is based on a combination of four factors: the path of the HIV/AIDS epidemic; population growth; anticipated changes in labour force participation rates; and slow growth in access to ARVs. In Asia, similarly, the number of labour force participants unable to work is expected to increase, but substantially less rapidly between 2015 and 2020. In Latin America and the Caribbean, the number of labour force participants who become partially or fully unable to work is expected to drop by 14 per cent between 2005 and 2020, notwithstanding a rise between 2010 and 2015 due to the path of the epidemic, especially in the Caribbean countries. Similarly, even though there will be increases in the countries of developed regions – notably in the Russian Federation and Ukraine where increases would persist from 2005 to 2015 due to the anticipated path of their epidemics – they are expected to see an overall decline of about 10 per cent between 2015 and 2020 in the number of labour force participants becoming either partially or fully unable to work.

These projections continue to argue loudly for comprehensive workplace action against HIV/AIDS, especially in the developing regions of Africa and Asia. The ILO upholds the principle and contributes to the UNAIDS strategy of universal access to antiretroviral medication (ARVs). Workers will continue to become ill in large numbers for many years to come, and increasing numbers of workers will require access to treatment as those who start treatment survive in larger numbers. Access to ARVs in the workplace must rise substantially not only to achieve the increased survival of workers anticipated by the projections, but to reach beyond those objectives to achieve truly universal treatment for all the workers who need it.

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The benefits to labour productivity of access to ARVs in each country affected by HIV/AIDS are estimated and discussed in Chapter 2.

Main table 6: Estimated and projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force

Main table 6 shows the progressive labour force losses of men and women due to HIV/AIDS mortality between 2005 and 2020. The effects of mortality on the labour force are direct when workers die as a result of HIV/AIDS. Mortality has indirect effects that also cause losses to the labour force, and the data in the table include lost labour force participants who were never born because their possible parents died prematurely of AIDS.

Another feature of the table is that, as is the case for Main tables 5A and 5B, the labour force projections incorporate increased survival due to access to ARVs, with coverage rising to between 40 and 85 per cent, depending on the coverage estimated by WHO at the end of 2004 for each country.

As successive generations of persons living with HIV become ill with AIDS and die, the total death toll relentlessly cumulates. By 2005, nearly 28 million economically active men and women had died since the onset of the HIV epidemic, among whom it is estimated there were 17 men for every 10 women, and 19 persons from Sub-Saharan Africa for every 8 persons living elsewhere in the world. The toll in Africa was already exceptionally large by 2005: the Central African Republic, Namibia, South Africa and Uganda had lost about 10 per cent of their labour forces; Lesotho, Malawi and Zambia had lost between 12 and 16 per cent; and Botswana, Swaziland, and Zimbabwe had lost about 20 per cent. These losses are estimates of the actual situation, given that these deaths have already occurred.

Moreover, even with increased survival due to increasing coverage of ARVs, the total number of labour force losses is projected to reach 45 million by 2010 – fewer than four years from now – and 31 economically active men and women will be lost to Africa for every 14 lost to all the other regions. At that point, unless access to ARVs has increased more rapidly than now anticipated, Botswana and Swaziland will have lost more than 30 per cent of their labour force; Lesotho and Zimbabwe about 25 per cent; the Central African Republic, Malawi, Mozambique, Namibia, South Africa, Uganda, the United Republic of Tanzania, and Zambia between 11 and 19 per cent; and Congo, Côte d'Ivoire, Kenya, and Rwanda will have lost 9 to 10 per cent. Outside Africa, Haiti alone is also projected to lose between 9 and 10 per cent of its labour force by 2010.

Without more rapidly or widely increasing coverage of ARVs, over 64 million labour force participants will have been lost worldwide by 2015, among whom 44 will be lost to Africa for every 20 lost to all other regions. By then, fully half of all countries of Sub-Saharan Africa – 20 countries – will have experienced a 9 per cent fall in their labour force: Burundi, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Kenya, Mozambique, Rwanda, Uganda, and the United Republic of Tanzania will have lost between

1 and 2 workers in every 10; Malawi, Namibia, South Africa and Zambia more than 2 in every 10; and Botswana, Lesotho, Swaziland and Zimbabwe more than 3 in 10 workers. Outside Africa, Haiti also will have lost fully 1 in every 10 labour force participants.

Similarly, by 2020, projections suggest that the global labour force will have nearly 86 million fewer workers, a loss equivalent to the 2005 population of Germany in Europe (about 83 million), or Vietnam (84 million) in Asia, or two countries half their size, such as South Africa (47 million) in Africa and Spain (43 million) in Europe.

By 2020, 23 countries in Sub-Saharan Africa will have lost more than 9 per cent of their labour forces. Losses are anticipated to reach 4 in every 10 workers in Botswana, Lesotho, Swaziland, and Zimbabwe by that point. In addition to the increasing cumulative toll in the 16 other countries with the greatest losses in 2015, Burkina Faso, Liberia and Nigeria will by then have lost 9 to 10 per cent and joined the group of the worst-affected countries in the region. By then, Haiti also may have lost over 12 per cent of its labour force.

The consequences of these losses are discussed in relation to the economic costs to countries in Chapter 2, along with the potential gains according to alternative scenarios for ARV coverage. The human losses are discussed in Chapters 3 and 4, where the price paid by children and youth in a world with AIDS is explored with respect to both its direct and indirect aspects, and its short and long-term consequences.

Main table 7: Estimated and projected direct mortality impact of HIV/AIDS on working-age persons

In many settings, particularly the resource-poor settings of developing countries, the informal economy accounts for more economic activity than the formal sectors, yet not all forms of informal activity can be gauged. In these settings, most adults work, as do the majority of older youth, and there is little formal retirement. There are few optional sources of income or livelihood other than one's own labour, and many people live on a day-to-day and hand-to-mouth basis. In these circumstances, virtually all persons aged 15 and over are contributing something to the economy, whether in formal employment or the informal economy as conventionally defined, or in other forms of productive activities inside or outside the household. To any economy, therefore, not only labour force losses count, but it is the losses accruing to all working-age persons that can often allow the more accurate characterization of the impact of HIV/AIDS due to mortality.

Moreover, labour force participants do not represent the totality of parents of minor children. Labour force participation in Sub-Saharan Africa, for example, is estimated to be about 86 per cent for men, 63 per cent for women and 74 per cent overall for adults aged 15 years and over in 2006. Many parents, particularly mothers, are not economically active as conventionally defined and measured. Accordingly, it is the greater number of persons of working age who more exactly represent the totality of adults who have underage dependants. Their survival is essential for the parental love, educational guidance and material support that children need to grow up.

From the point of view of children, adolescents and underage youth, another way to look at the impact of the epidemic is to quantify the proportion of families affected by the epidemic, and notably the proportions of families in which an adult has died or is ill due to symptomatic AIDS, regardless of labour force status. Table 2 shows the estimated proportions of affected families in 33 Sub-Saharan countries in 2003. The proportions range widely, following the variations in HIV prevalence. Overall, however, the toll on families and consequently on children and youth is grim, with one in twenty families affected across Africa. Given that completed family size currently averages between 3 and 6 children per woman for the regions of Southern, Eastern, Western and Middle Africa, the numbers of children affected would be multiples of the numbers of families.

Accordingly, Main table 7 outlines the annual mortality due to AIDS of all men and women of working age in the countries affected by the epidemic at four points: 2005, 2010, 2015, and 2020. As is the case for Main tables 5A, 5B and 6, the projections of working-age persons incorporate assumptions regarding their increased survival due to access to antiretroviral medication (ARVs). Access rises to a coverage level of between 40 and 85 per cent, depending on the baseline coverage estimated by WHO at the end of 2004 for each country. According to this approach, the ILO estimates that over 3 million persons 15 years and over died due to AIDS in 2005, the large majority of them – 69 per cent – in Sub-Saharan Africa.

In this way also, the ILO projects that over 4 million persons of working age – over 2 million men and nearly 2 million women – will die in a single year by 2010 as a result of AIDS, 4.4 million yearly by 2015, and 4.5 million yearly by 2020. At the same time, the proportion of total deaths projected to occur in Sub-Saharan Africa will decline from 69 per cent to 67, then 63 and 62 per cent, even though ARV coverage is expected to rise least and most slowly in the African region compared to other regions. This is because of the steady increase in deaths in Asia projected as a result of the anticipated path of the Asian epidemics. It can be noted furthermore that these trends are expected to occur even though deaths in Latin America and the Caribbean and countries in the developed regions would decline by 2020.

Another feature of the projected trends in deaths of persons of working age is the steady increase in the overall proportion of women – from 46 per cent in 2005 to 47 per cent in 2010 and about 48 per cent in 2015 and 2020. This tendency is essentially driven by the expected trends in Sub-Saharan Africa, where 6 women

Table 2. AIDS-affected families: Numbers of families in which a parent has died of AIDS, numbers of families in which an adult has symptomatic AIDS, and proportion of AIDS-affected families among all families, 33 countries of Sub-Saharan Africa, 2003

Country	AIDS-affected families		AIDS-affected families as a proportion of all families (per cent)
	Number of families in which a parent has died of AIDS	Number of families in which an adult has symptomatic AIDS	
Angola	34 300	15 200	2
Benin	9 100	4 500	1
Botswana	33 300	29 700	22
Burkina Faso	63 200	21 400	5
Burundi	67 200	18 300	7
Cameroon	67 800	41 000	4
Central African Republic	33 200	18 800	9
Chad	26 800	13 900	3
Côte d'Ivoire	76 100	40 000	5
Democratic Republic of Congo	220 500	72 300	4
Eritrea	14 800	5 200	2
Ethiopia	253 500	92 900	3
Gabon	3 000	2 600	3
Gambia	0 500	0 500	1
Ghana	43 400	26 300	2
Guinea	9 600	6 900	1
Kenya	189 500	141 900	6
Lesotho	35 600	26 100	19
Madagascar	10 500	5 200	<0.5
Malawi	175 700	65 500	10
Mali	20 600	8 800	1
Mozambique	160 800	90 800	7
Namibia	17 200	12 900	9
Niger	6 400	3 100	1
Nigeria	526 100	250 300	4
Rwanda	56 200	17 000	5
South Africa	483 000	358 700	10
Swaziland	13 000	13 700	21
Togo	13 900	8 100	3
Uganda	254 500	57 300	7
United Republic of Tanzania	297 800	134 200	7
Zambia	194 900	71 000	14
Zimbabwe	303 200	157 400	20
Total/Overall proportion	3 715 200	1 831 900	5

Source: adapted from Belsey, 2005: 155 (Annex table 1).

are estimated to have died for every 5 men already in 2005 (the ratio is 122 women for each 100 men). Thereafter, 4 women are projected to die each year in Sub-Saharan Africa for every 3 men (132 women for every 100 men in 2010, 135 women in 2015 and 134 in 2020).

In Sub-Saharan Africa, it is estimated that, already in 2005, 6 women died for every 5 men. Thereafter, until 2020, 4 women are projected to die each year in Sub-Saharan Africa for every 3 men. From 2010 to 2020, up to 135 women will die for every 100 men.

The projections in the table make it clear that access to ARVs must increase rapidly to truly make a difference. At the increasing levels of coverage that are currently anticipated for the future, there will not be

enough benefit or impact to stem the losses or mitigate the consequences. The deaths of women, in particular, are expected to be staggering in a region where they are essential to the wellbeing of every household and the survival of every child.

Main tables 8A, 8B, 8C and 8D: Estimated and projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS

Main tables 8A, 8B, 8C and 8D seek to illustrate the increased burden due to the combined impact of HIV/AIDS-related deaths and illness in the economically-active population (economic burden), and in the working-age population as a whole (social burden) at four points in time: 2005, 2010, 2015 and 2020.[11]

The economic burden results from two impacts: AIDS-related deaths of labour force participants, and economic dependency due to illness. The measure therefore takes into account first the numbers of deaths and then the numbers of persons economically dependent for reasons of age (children under 15 and adults over 64 years) as well as persons who have become economically dependent due to illness and inability to work, relative to the numbers of economically active persons who are still alive and fit to work. As in the case of Main tables 5A and 5B, a single model for the duration of illness – 9 months in Stage III, and 3 months in Stage IV – was applied.[12]

As is the case for Main tables 5A, 5B, 6 and 7, these estimates and projections of the economic burden to the labour force and the social burden to the working-age population incorporate mortality assumptions of increased survival due to access to antiretroviral medication (ARVs) that rises to a coverage level of between 40 and 85 per cent, depending on the baseline coverage estimated by WHO at the end of 2004 for each country. Beyond this built-in effect, there will also be benefits to workers and working-age persons who are ill, when they regain normal levels of physical activity and are once more able to work. Accordingly, the impact due to illness in the projections presented will be somewhat mitigated by access to ARVs by workers in Stages III and IV of HIV/AIDS, even if the benefit cannot yet be specified in the projections. It is well to note however, that the impact due to deaths is a much larger component of the economic and social burdens than the impact due to illness, so the effect due to illness mitigation would consequently be small.

For most countries, the total economic burden was increased by a few percentage points by 2005, but in 17 of the 60 countries, the burden was increased by about 5 per cent or more, which is a considerable impact. Most of the countries already affected are in Sub-Saharan Africa, where 6 countries had extraordinary increases in the economic burden by 2005: Botswana (29 per cent), Swaziland (26 per cent), Lesotho (20 per cent), Zimbabwe (18 per cent), Namibia (13 per cent), and South Africa (11 per cent). Nevertheless, both the Bahamas and Haiti had also experienced significantly large impacts of nearly 5 per cent by then.

Owing to the small population weight of Africa, and the large population weight of the biggest countries affected by HIV/AIDS where the economic burden by 2005 was still small (in particular in Asia), the overall global effect was only half of 1 per cent (see Main Table 8A Summary).

By 2010, even with increasing coverage of ARVs, 20 countries will have an increase in their economic burden of about 5 per cent or more. Again, the majority will be in Africa, where the increase will reach 40 per cent in Botswana. Also by then, 3 countries in the Latin America and Caribbean region will approach or exceed a 5 per cent impact. At global level, Africa will continue to be the region most affected (over 5 per cent for the region), but the overall effect will still be below 1 per cent.

By 2015 however, the global increase in the economic burden will exceed 1 per cent, and the impact will reach or exceed 5 per cent in 24 countries, 4 of which are in Latin America and the Caribbean region. The economic burden is likely to increase to over 6 per cent for Africa as a whole.

By 2020, the economic burden is expected to approach 2 per cent at the global level, and to exceed 7 per cent in the region of Sub-Saharan Africa. By then Asia will have cumulated a greater than 1 per cent increase in the economic burden, and the burden will have increased by nearly 1 per cent in Latin America and the Caribbean.

The increase in the social burden to all people of working age can similarly be traced across the projection period. The social burden will nevertheless be less, principally because there are more persons of working age than labour force participants. It is nevertheless this source of strength to the countries highly affected by the epidemic that will ultimately bear the brunt of the impact – in terms of care for the terminally ill and the growth in dependants that will ensue. In many cases, particularly in Africa, older persons who would have typically relied on their children for support will face not only the loss of that support, but the additional responsibility of raising children once more. For this, they will need to stretch their physical capability and resources rather than being able to slow their activities, and millions of orphans will rely on them to absorb the burden of support that they will necessarily impose.

This means of capturing the impact of HIV/AIDS on the labour force and on working-age persons serves to illustrate and clarify the macroeconomic impact of the epidemic (discussed in Chapter 2) as well as to explain its impact on children, on youth, and on the household, especially in Africa (see Chapters 3 and 4).

Main tables 9A and 9B: Annual survival of labour force participants in Stage IV of HIV/AIDS with access to antiretroviral treatment, low and high adherence scenarios

In recognition of the growing will to implement universal access and the accompanying mobilization, the ILO has projected the potential survival of labour force participants with access to ARVs. This serves to illustrate the potential gains that would be owed to widespread access to treatment in the world of work (see Main tables 9A and 9B discussed below). This was done by applying the assumptions regarding survival of persons treated with ARVs that underlie the United Nations projections to ILO projections of labour force participants in the 60 countries most affected by the epidemic.

The time period of these projections is quite short compared to the horizon of the projections presented so far. This is because survival after onset of AIDS is counted in years rather than decades, whether or not there is treatment with ARVs. Moreover, this is especially true in resource-poor settings, where access to ARVs is likely to occur later rather than earlier in the course of the disease, and where other factors – such as malnutrition – make recovery less likely. A fraction of any group that initiates treatment will die because treatment began too late for them. For workers entering treatment and surviving, side-effects and intolerance reduce their likelihood of survival, and deaths occur due to other causes, so attrition of the original pool under treatment inexorably proceeds. For these reasons, the United Nations' projections assume that 50 per cent of persons receiving treatment survive 4.5 years after the onset of AIDS. On average, they would live 3.1 years, compared to an average survival of 1 year without treatment. This survival time is the result of an annual survival probability of up to 80 per cent. Accordingly, the projections presented in Main tables 9A and 9B cover the 5-year period, 2006 to 2010 inclusive.

Additional factors to consider are the degree of compliance with ARV therapy (regularity of administration), and continuity or perseverance (adherence to treatment over time), which cause further variability in a worker's chances of survival once treated with ARVs. Studies show that adherence to therapy, which is easier to observe and relies on compliance, can vary depending on a number of factors, and that adherence of groups can range widely, for example from better than 90 per cent adherence after three years of treatment to 50 per cent attrition after 1 year of therapy – a rare extreme. To address this issue and take account of the most likely variation, the ILO has projected two scenarios founded on alternative continuation probabilities that depend on adherence. The first – the low adherence scenario – assumes a continuation probability of 80 per cent per year, and the second – the high adherence scenario – assumes a continuation probability of 93 per cent per year.

For the purposes of these projections, the ILO has assumed that ARVs are given only in Stage IV of HIV/AIDS and all labour force participants who have reached this stage will begin ARV therapy. It is assumed that no worker starts ARVs before reaching Stage IV, and no worker entering Stage IV remains untreated. Each year, the pool of workers treated grows as a result of new entrants into Stage IV. It is assumed that all the treatment is initiated in 2006.

As can be seen in Main table 9A, increasing numbers of workers survive from 2006 to 2010, as workers under treatment survive, and each year workers reaching Stage IV enter treatment. Globally the number of workers treated grows from about 669,000 who survive the first year of treatment to over 1.2 million surviving the second year, more than 1.7 million the third year, over 2.1 million the fourth year, and nearly 2.5 million surviving through the fifth year.

This means that of the 17.3 million losses to the labour force expected to occur between 2005 and 2010 (see Main table 6 Summary) at global level, over 14 per cent would be averted by universal access to ARVs, even with low adherence and cumulatively poor continuation rates (after 5 years, only 33 per cent of an original pool of treated workers would still be in treatment). It should be noted that the effect would be more beneficial in Africa (over 15 per cent of losses averted) than in Asia (over 12 per cent losses averted). This is because the assumptions regarding increased coverage of ARVs already built into the background projections are more favourable in Asia than Africa, and for Africa there is more room for improvement.

The number of workers who survive through the 5 years of treatment is much greater for the higher adherence rate of 93 per cent because of the difference in multiplicative effects of the adherence rate by the end of the period. Accordingly, the number of workers treated grows from about 778,000 who survive the first year of treatment to over 1.5 million surviving the second year, 2.2 million the third year, nearly 3 million the fourth year, and nearly 3.7 million the fifth year.

This means that of the 17.3 million losses to the labour force expected to occur between 2005 and 2010 (see Main table 6 Summary) at global level over 21 per cent would be averted by universal access to ARVs with high adherence, despite cumulatively worsening continuation rates (after 5 years, 70 per cent of an original pool of treated workers would still be in treatment). Again, the effect would be more beneficial in Africa (23 per cent of losses averted) than in Asia (18 per cent losses averted) because of background assumptions regarding the regional progression of ARV access.

These projections suggest that much can be gained from forceful expansion of access to ARVs, even when and where adherence is low. The prospect of averting between one fifth and one quarter of potential new losses to the labour force should serve as a powerful incentive to target the workplace as a major entry point to achieve universal access to ARVs. Furthermore, the importance of adherence to the survival of persons under treatment lends weight to arguments regarding

the benefits of integrating the administration and monitoring of treatment in the workplace. Stable structures can be designed in the workplace to ensure steady drug regimens and follow-up, with full respect for confidentiality and privacy. Such an approach would also argue for early treatment, when workers are still able to work, which shows long-term survival benefits. Chapter 2 develops many aspects of the benefits of ARVs to the labour force and the world of work.

Main table 10: Projected cumulative mortality losses to the labour force as a result of HIV/AIDS and equivalent proportion of the labour force, vaccination scenario

Main table 10 introduces the new potential effects of effective vaccination against HIV. Based on the United Nations' projections, the scenario presents the impact of three optimistic assumptions with regard to quality, space and time: that a vaccine against HIV that is 100 per cent effective would become "universally and instantaneously available" beginning in 2006. Consequently, the projections of the labour force presented here would be limited to the future illness and mortality of persons already living with HIV prior to 2006, given that it is assumed not a single additional transmission would occur after that time.

The table shows the progressive labour force losses of men and women due to HIV/AIDS mortality up to 2010, 2015 and 2020 when mitigated by the sudden disappearance of new cases after 2006. As is the case of Main table 6, Main table 10 incorporates both the direct effects of mortality on the labour force due to worker deaths, and the indirect effects due to the loss of labour force participants who were never born because their possible parents died prematurely of AIDS.

As is the case in Main tables 5A, 5B, 6 and 7, the labour force projections incorporate assumptions regarding increased survival due to access to ARVs that rises to a coverage level of between 40 and 85 per cent depending on the baseline coverage estimated by WHO at the end of 2004 for each country.

Comparing the losses due to the HIV/AIDS epidemic and the losses after introduction of a vaccine, the number of labour force losses would be diminished by over 1.2 million by 2010, by nearly 6.5 million by 2015 and by 19 million by 2020 (see Main table 6 Summary and Main table 10 Summary). Compared to the 17.3 million deaths that are projected to occur after 2005 (nearly 28 million labour force losses had already occurred by 2005 and cannot be affected), the vaccination scenario would imply that fully 7 per cent would be averted in the 4 years 2006-2009. Similarly by 2015, compared to the projected losses of the labour force, nearly 18 per cent would be averted by vaccination in the 9 years since its inception, and by 2020 nearly 33 per cent of losses would have been averted in a 14-year vaccination campaign between 2006 and 2019.

These levels show remarkable gains and should serve to encourage governments, workers and employers' organizations to each contribute in whatever ways they may to global efforts to develop and prepare for an HIV vaccine.

Against the remarkable difference that vaccination could introduce, it is sobering nevertheless to note the relentless increase in labour force losses that is still expected across the period of the projection due to the enormous in-built momentum of the HIV epidemic. As a result of the long period between HIV acquisition and the onset of AIDS, the millions of workers estimated to be already living with HIV will inevitably become ill and, without truly universal access to treatment, the workers lost will still number in the millions. HIV has been transmitted far and wide and has deeply penetrated the most affected societies, with the result that an epidemic of deaths will inexorably follow. In this way, nearly 44 million losses would still be cumulated globally by 2010, 58 million by 2015, and 67 million by 2020. In Sub-Saharan Africa, the region that cumulated 70 per cent of the world's labour force losses due to HIV/AIDS by 2005, the losses are anticipated to cumulate to over 30 million by 2010, over 40 million by 2015, and reach 47 million by 2020. Asia will cumulate nearly 10 million losses by 2010, 13 million by 2015, and 15 million by 2020.

These observations once again underscore the critical importance of multiple and vigorous action against HIV/AIDS in the world of work. A vaccination that can be effective and universal will have dramatic benefits and an extraordinary impact on the path of the epidemic. But there is no substitute to providing ARVs to workers who are already living with HIV/AIDS, as the vast majority of impending deaths could be averted through treatment in the shorter term, and to intensification of preventive behaviours – coupled with access to treatment – in the longer term.

In sum, the vaccination scenario comprises one critical part of the most optimistic scenario for the labour force. The other critical parts of the optimistic scenario are intensification of prevention to control the number of workers becoming HIV-positive worldwide – but most particularly in regions where much of the epidemic and HIV transmission lie ahead – and fundamental, rapid expansion of access to treatment for the millions already living with HIV.

Main table 11: Projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, difference between vaccination and no vaccination scenarios

Main table 11 serves to illustrate the benefits of the vaccine intervention in a global vaccination campaign scenario. In the discussion of Main table 10 above, a comparison was drawn between the lives saved by vaccination and the losses due to HIV/AIDS projected to occur after 2005. Here the labour force lives saved by vaccination are presented as a proportion of all labour force losses that would still occur under the vaccination scenario, demonstrating the impact of vaccination on the future course of the epidemic.[13]

Gains to the global labour force rise rapidly across the period of the projection, from less than 3 per cent lives saved after the first 4 years (2006-2009), to over 11 per cent after the first 9 years (2006-2014) and to more than 28 per cent after 14 years of the vaccination campaign (2006-2019). Therefore notwithstanding the force of the HIV epidemic, an intervention such as vaccination that causes the sudden cessation of HIV transmission could avert between a quarter and one third of the anticipated labour force losses in fewer than 15 years, over and above the benefits of increasing access to ARVs.

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The gains from the intervention would differ by region. The benefit to Asia would be greater proportionately than to Africa throughout the projected period – rising from over 9 per cent in 2010 to over 20 per cent in 2015 and 41 per cent in 2020 (compared to 1, 8 and 24 per cent in Africa) – this is because the path of the epidemic is later than in Africa. Many deaths are still hypothetical in Asia, and as a result more deaths can be averted by intervention now. For the same reason, the three developed countries also stand to gain proportionately more. Latin America and the Caribbean, on the other hand, stand to gain less because their epidemics also had an earlier path. Owing to the timing of the epidemic, women initially stand to gain the most in Asia and in the developed countries. This is because much of the growth in heterosexual transmission of HIV to women which is already underway is still in the realm of projections, and could be averted theoretically with effective cessation of HIV transmission.

In sum, an intervention such as instantaneous, universal and effective vaccination would contribute substantially to stemming losses to the global labour force that are projected to occur because of the path of the epidemic. Accordingly, the intervention would especially benefit the regions with later epidemics, and women where much of the growth in heterosexual transmission still lies ahead. It should be noted however, that the intervention cannot have an effect on stemming the inevitable losses to the labour force that are the inherent result of HIV transmission that has already occurred. This exercise has demonstrated that the negative momentum of the epidemic is now so great that even with effective intervention over 70 per cent of the labour force losses currently projected will come about globally, notwithstanding increased access to ARVs. To save those lives, a more uncompromising and deliberate path to universal access to ARVs must be forged without delay and without reserve.[14]

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The new analyses illustrated in Main tables 9A, 9B, 10 and 11 show clearly that both prevention and treatment can bring significant benefits to the global labour force and the world of work, even if prevention is too late for millions of persons already living with HIV. At least there is hope for the future for persons already living with HIV. Each labour force life preserved represents a potential productive gain for enterprises, the public sector – in particular health, education, and public services more generally – the household and the family, especially children, as well as recognition of the fundamental rights of each and every working man and woman.

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Chapter 2. HIV/AIDS and employment: the benefits of antiretroviral treatment on labour supply and productivity

The impact of HIV/AIDS ultimately threatens the fulfilment of the goal of decent work for all, because the loss of workers also leads to a loss of jobs.

(ILO, 2004c)

The impact of HIV/AIDS on employment: Employment forfeited

The ILO has long advocated that productive employment and decent work are fundamental to the global struggle against poverty and to the achievement of internationally-agreed development goals. Accordingly, the ILO has held high the principle of placing employment at the heart of economic and social policies, and the organization has developed a coherent and coordinated international strategy, the *Global Employment Agenda*. Within the framework of decent work for men and women everywhere and consistent with the Millennium Development Goals (MDGs), the Agenda seeks to improve the lives of the hundreds of millions of people who are either unemployed, or whose remuneration from work is inadequate to allow them and their families to escape poverty through the creation of productive employment, among other means.

Unemployment is probably the biggest security risk many countries are confronting.

Juan Somavia, ILO Director-General

In developing economies, poverty remains the most persistent and severe economic and social problem facing the majority of the population. It aggravates all other human problems and is an important root cause of conflict and of diseases, including malaria, HIV and tuberculosis. At the same time, HIV/AIDS is an obstacle to poverty reduction in most resource-poor settings as it ultimately impoverishes households through slowed economic growth and loss of jobs as well as by directly depriving households of their main providers. Consequently, the final impact of HIV/AIDS is to squarely threaten achievement of the goals of decent work, poverty reduction, and sustainable development.

To date the global workforce has lost 28 million economically active persons as a result of HIV/AIDS. Even at the anticipated pace of increase in access to ARVs, the global loss is expected to more than double in the decade 2005-2015 (see Main table 6). Far more concrete and coordinated actions need to be taken if the global community wants to cease compromising efforts to reduce poverty and realize the MDGs. Furthermore, youth – who are the human capital of the future – face unemployment rates that are 2 to 4 times greater than those faced by adults and at the same time they are becoming HIV-positive at a faster rate than the general population.

Furthermore, youth – who are the human capital of the future – face unemployment rates that are 2 to 4 times greater than do adults and at the same time are becoming HIV-positive at a faster rate than the general population.

Because of its role in poverty reduction, action for employment is an essential component in the development and implementation of poverty reduction strategies, especially in countries highly affected by HIV/AIDS where the epidemic is a disease heavily linked to poverty. Yet the rate of economic growth has been reduced by the epidemic's effects on labour supply, productivity and investment. Consequently, less employment has been created in the most highly affected economies that are also likely to be the poorest. As a result, also, any efforts made by these countries to achieve the goal of poverty alleviation are severely undermined by the epidemic.

Moreover, for workers already living with HIV/AIDS, employment is a crucial lifeline. Without income and the dignity of decent work, essential subsistence is threatened when a worker becomes ill, and access to ARV treatment and care become close to impossible. Essentially, to a worker living with HIV/AIDS, remaining employed is the foundation for treatment and a major therapeutic component as well as the only safeguard against impoverishment.

Essentially, to a worker living with HIV/AIDS, remaining employed is the foundation for treatment and a major therapeutic component as well as the only safeguard against impoverishment.

The cycle must be broken through vigorous action on all fronts. Efforts to check the HIV epidemic move apace, but the rate of increase in access to ARVs by workers in resource-poor settings is still highly deficient relative to both the demand and to the level required to mitigate the impact of HIVAIDS on households in the macroeconomic as well as microeconomic spheres. At the same time, employment strategies should focus on special areas of need in relation to HIV/AIDS, notably youth, women, and mobile populations. Such strategies must rest, however, on an evidence base that demonstrates both the losses due to HIV/AIDS and the potential gains due to ARV treatment.

In earlier work, the ILO had developed a model to measure the impact of HIV/AIDS on economic growth. Results implied that the epidemic had indeed reduced the annual rate of growth of the gross domestic product (GDP) of the countries studied and lowered the rate of increase of GDP per capita. In view of the fact that employment is central to the ILO's mandate and core strategic objectives, the model was further developed to measure the employment implications of the loss in economic growth, and highlight the employment forfeited and opportunities wasted because of insufficient or lagging response to the unrelenting HIV epidemic.[15] The model relies on the basic relationship between economic growth and employment.[16] Although the model serves to highlight a shortfall – the employment that would have been gained if HIV/AIDS was not a threat to the economy – its main purpose is to demonstrate to the ILO's constituents, partners and other stakeholders that to meet the core element of the ILO's Global Employment Agenda, and for workers to benefit from employment creation and access to decent work, the HIV/AIDS epidemic must be squarely addressed.

On the basis of more recent work to estimate the impact of the HIV epidemic, the ILO has found that HIV/AIDS reduced the rate of GDP growth by an average 0.5 percentage points annually in the 43 countries where the economic impact of HIV/AIDS was measurable over the 13-year period 1992 to 2004 (see Main table 2). This is equivalent to an average annual loss of nearly $US13 billion for the 43 countries as group, and over $US6 billion for the 31 countries of Sub-Saharan Africa.

Also as result of losing economic growth due to HIV/AIDS, employment growth is reduced by 0.3 percentage points a year on average, implying that 0.3 percentage points of employment growth was forfeited each year by this group of countries as a result of HIV/AIDS. Although derived from the restricted relationship between economic growth and employment (the employment elasticity to GDP), these results imply that the macroeconomic impact of HIV/AIDS should be addressed and that it remains a key issue in the response to the epidemic.

In absolute terms, this shortage in employment growth represents an annual forfeit of 1.3 million in employment worldwide. It is a shortfall that adds further pressure where there is so much already: on the decent work deficit of hundreds of millions of labour force participants. It adds yet another limitation on the potential of economies to respond to the inadequate supply of jobs. Furthermore, to the extent that employment data do not take fully into account adults of working age – particularly women – who are not working, but who are performing unpaid household work, employment forfeited is underestimated. For example, the proportion of the entire adult population aged 15 years and over in employment in 2005 in the 31 countries of Sub-Saharan Africa listed in Main table 2 was estimated to be 55 per cent only, which implies that an unknown proportion of the remaining 45 per cent of the working-age population might seek employment should jobs be available. Accordingly, many more jobs are lost due to the epidemic, mostly in Africa but also in Asia, that could not be captured by the model. Far more study of employment is required to shed light on how the epidemic has adversely affected jobs and labour at the base of African society.

With respect to the employment forfeited that is measurable, as was found in the 2004 impact study, Sub-Saharan African countries are again the hardest hit because of their high average HIV prevalence rate. The rate of economic growth in this region was reduced by 0.7 percentage points a year, leading to a reduction in employment growth of 0.5 percentage points per annum on average. In the countries of Sub-Saharan Africa that are among the most highly affected by HIV/AIDS in the world, where unemployment reaches among the highest levels in the world, and that can least afford employment losses, growth in employment would have been greater by 0.5 percentage points every year, on average, between 1992 and 2004, had there not been an HIV epidemic. This represents an employment gap exceeding 1,000,000 annually for Africa.

> *In Sub-Saharan Africa ... growth in employment would have been greater by 0.5 percentage points every year, on average, between 1992 and 2004, had there not been an HIV epidemic. This represents an employment gap exceeding 1,000,000 annually ...*

The other regions similarly experienced a loss in economic growth and consequently a loss in employment growth, but of lesser magnitude than in Africa. The estimated shortfall in the average annual growth rate of employment ranges from below 0.05 percentage points for countries in developed regions to 0.2 percentage points in Latin America and the Caribbean and 0.3 percentage points in Asian countries (see Main table 2). The annual shortfall in total employment growth in absolute numbers is estimated to reach 101,000 in Asia and nearly 86,000 in Latin America and the Caribbean, but to be less than 25,000 in countries of developed regions.

Furthermore, the findings point overall to the extraordinary potential for adverse economic effects of a major disease epidemic, in this case the damage to economic growth and employment resulting from HIV/AIDS. The inextricable link between poverty and disease means

HIV, AIDS and ARVs

The human immunodeficiency virus (HIV) causes acquired immune deficiency syndrome (AIDS) by destroying lymphocytes or white blood cells essential to the immune system (helper T-cells with the CD4 protein, often shortened to CD4+ cells). In Sub-Saharan Africa, most HIV transmission between adults occurs through heterosexual sex. After transmission, the newly HIV-positive individual enters clinical latency for a period of years during which health status declines gradually and few symptoms are experienced. Median time from seroconversion to AIDS in Africa is estimated to be about 10 years, which is similar to the duration in developed countries.[20] During this latency period, most HIV-positive individuals are unaware of their status (unless they have access to and request a diagnostic test) and are physically capable of performing their normal day-to-day activities.

Over time, HIV-positive individuals experience a weakening of the immune system that will progress to AIDS. This later stage is associated with substantial weight loss (wasting) and opportunistic infections (such as *pneumocystis carinii* pneumonia, Kaposi's sarcoma, and tuberculosis). In the absence of ARVs, in the resource-poor settings of Africa, death ensues on average a year after progression to AIDS. In most settings, younger age is associated with longer survival, but sex is not associated with survival: confusion may arise only because women are infected at younger ages. Opportunistic infections are the immediate cause of death in many cases where AIDS is the underlying cause, and the death has occurred as a result of AIDS.

Where treatment is available, individuals are considered eligible after they progress to a certain level of AIDS that is measured in CD4+ counts, or in terms of clinical symptoms. Highly active antiretroviral therapy (HAART) has been demonstrated since 1996 to reduce the likelihood of opportunistic infections and prolong the life of HIV-positive individuals who progress to AIDS, and drug regimens have been systematically improved in the interim. After several months of treatment, which is monitored where possible in CD4+ counts per cubic millimetre of blood, patients can become asymptomatic and have improved functional capacity. Numerous studies in various countries and patient populations have reported positive results. In Haiti, for example, patients had weight gain and improved functional capacity within a year after initiation of ARVs. In Brazil, also, median survival time rose to 58 months with ARVs.[21]

that these potential effects of slowed job growth have dire implications for poverty eradication and consequently the realization of internationally agreed goals such as the MDGs.

> *We need much greater cooperation among international organizations...to put in place the policies conducive to generating full and productive employment and decent work for all.*
>
> Juan Somavia, ILO Director-General

The benefits of antiretroviral treatment on labour supply and productivity

In resource-poor settings in Africa, Asia, and Latin America and the Caribbean, which account for 90 per cent of people living with HIV/AIDS, a minority to date have had access to ARVs for a number of reasons, among them the relatively high cost of drugs and the lack of infrastructure capability to deliver and monitor therapy. As the price of ARVs has significantly fallen and availability of generic drugs has increased, however, there has been an increase in access, especially recently. Nevertheless, still only a fraction of people needing treatment receive it, and scaling up treatment programmes poses a major challenge in many countries. Accordingly, some observers are still questioning investment in ARVs in view of the fact that most low-income countries have limited resources and a plethora of competing demands on those resources. In particular, the potential cost and benefits of programmes to access ARVs at enterprise as well as national level in the countries worst affected by the AIDS pandemic are still widely debated. When the issue of access to ARVs is raised in developing countries, the response of some policymakers has been until recently that ARVs are themselves too expensive, or that the purchase of other drugs should take priority. Even within developed countries that presumably have greater resources, some have questioned the wisdom of offering ARVs to the poorest members of society.

Numerous studies have now shown that ARVs quite dramatically reduce morbidity and mortality in persons living with HIV, in developing as well as in industrialized countries, where remarkable improvements in health status and life expectancy have been reported.[17] Increasingly, the benefits are being demonstrated especially when treatment is provided early, before the onset of AIDS. At the same time, the negative impact of ill-health due to HIV/AIDS on productivity has been amply shown. Yet the extent to which treatment can reverse demonstrated declines in labour productivity due to HIV/AIDS is only now being determined.[18] In this respect, it is already clear that health benefits more generally have the potential to significantly improve economic well-being, as suggested by growing evidence of linkages between health and income in developing

countries, including studies of the economic impact of nutritional status and morbidity.[19]

Benefits of universal access to antiretroviral drugs (ARVs)

At present, access to ARVs is being expanded in accordance with the global policy for universal access of UNAIDS, founded on long-term health and human rights principles. In the world of work, such principles neutralize arguments that resources allocated to ARVs deprive vital development sectors of resources, if ARVs can save the lives of workers who are the human capital of development and would otherwise be lost. Even observers who have expressed the fear that ARVs in resource-limited settings may divert resources and human efforts from more effective interventions such as HIV prevention acknowledge that the benefits of ARVs at individual level are irrefutable.

Moreover, treatment confers benefits beyond the individual which accrue to societies. When treatment is provided to persons who would otherwise die and they are seen to recover, the morale and attitude of the community are altered. Treatment and visible recovery serve also to reduce the social stigma and discrimination that undermine HIV prevention efforts. Additional benefits to society include the increased longevity and stability of families, expected reductions in HIV incidence due to lower viral loads, and diminished health care and hospitalization costs, as well as the enormous potential for increased productivity of the labour force that would benefit the world of work and therefore all of society.

Effects of ARVs on labour supply and productivity

Labour is the central productive asset of the poor in most developing countries. Consequently, labour supply and related outcomes such as income have been the focus of many studies to examine the economic impact of nutrition, morbidity, and AIDS-related mortality. Changes in the labour supply of adult AIDS patients can be so great as to generate intra-household spillover effects on time allocation patterns, and to influence other measures of household welfare.[22]

Several measures of labour productivity and of the standard of living are affected by improvements in the health of the labour force:

- At the individual level, health can directly increase
  - general output through enhanced physical energy and mental acuity
  - yearly output through reduced sickness absence
  - career output through decreased morbidity or increased longevity, resulting in a longer career
  - standard of living and income
- At the aggregate level, these individual increases in output can translate into increases in labour productivity, specifically:
  - output per hour worked
  - output per worker
  - standard of living, or GDP per capita, by increasing the size of the active labour force relative to the population

In developing countries, where the majority of persons living with HIV are 20 to 45 years old, improved health and life expectancy is likely to add years of labour productivity, which for enterprises translates into decreased absenteeism, and fewer recruitment and retraining needs, among other benefits. Yet although clinical trials are run to address how ARVs affect morbidity and mortality, little research has been initiated to date on how access to ARVs affect the productivity of workers. It is not enough to know that ARVs remarkably improve the health of individuals, because there are important stakeholders who are willing to purchase ARVs once they can see that there are clear and demonstrable economic returns.

One such study recently carried out on 769 households in Kenya[23] found that the provision of ARV therapy leads to a large and significant increase in the labour supply of AIDS patients (see Figures 1 and 2). The increase occurs soon after initiation of ARV administration, and within 6 months there is a 20 per cent increase in the likelihood of participating in the labour force and a 35 per cent increase in hours worked in the preceding week.

Persons treated with ARVs eventually return to productive life and autonomy which is seen in their gradual return to physical, mental and productive activities. ARVs decrease the HIV viral load and increase the CD4+ count. When ARVs are supplemented with nutritional support proponents argue that they more effectively and rapidly improve quality of life because of faster and ultimately greater weight gain, which is an important indicator of recovered health.

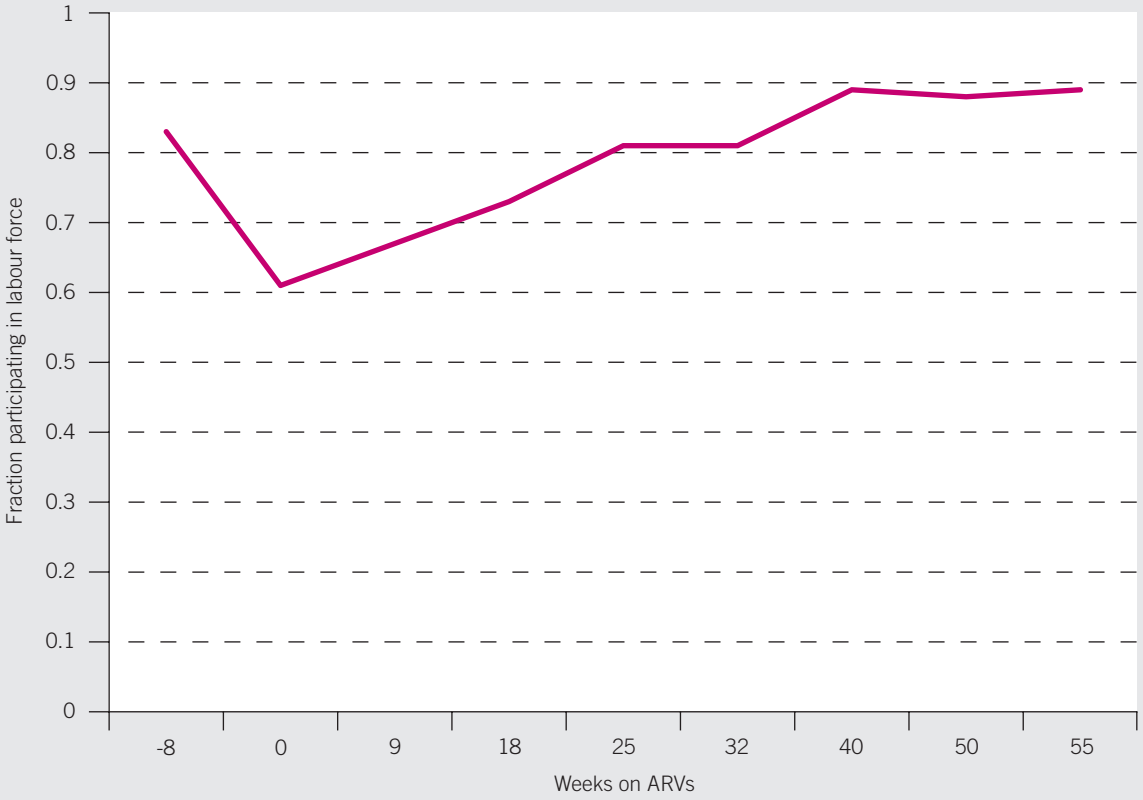
A recent study of 904 adults and youth in Haiti, for example, showed that at 6 months after initiation of ARVs, 84 per cent of surviving patients had gained a median of 4 kilogrammes (kgs) and only 16 per cent had stayed at the same weight, or lost weight. After 12 months, 85 per cent of the remaining patients had gained a median of 5.5 kgs and only 15 per cent had stayed at the same weight, or lost weight.[24]

In the face of the remarkable positive results from ARV treatment to date, it is unthinkable that the vast majority of persons living with HIV in developing countries do not yet have access to ARVs.

An ILO model of productivity returns to ARVs

Accordingly, the ILO developed a model to examine the effects of ARVs, in particular the estimated productivity gained from ARVs, and other potential benefits. It is based on three relationships (see box on page 22). The 60 countries defined by the United Nations as the countries most affected by HIV/AIDS were included in the model. Six countries were omitted because of lack of data availability and/or data reliability (Bahamas, Barbados, Haiti, Liberia, Myanmar and Suriname; see footnote to Main table 2).

Figure 1. Labour force participation rates worked prior to and after ARV therapy after ARV therapy



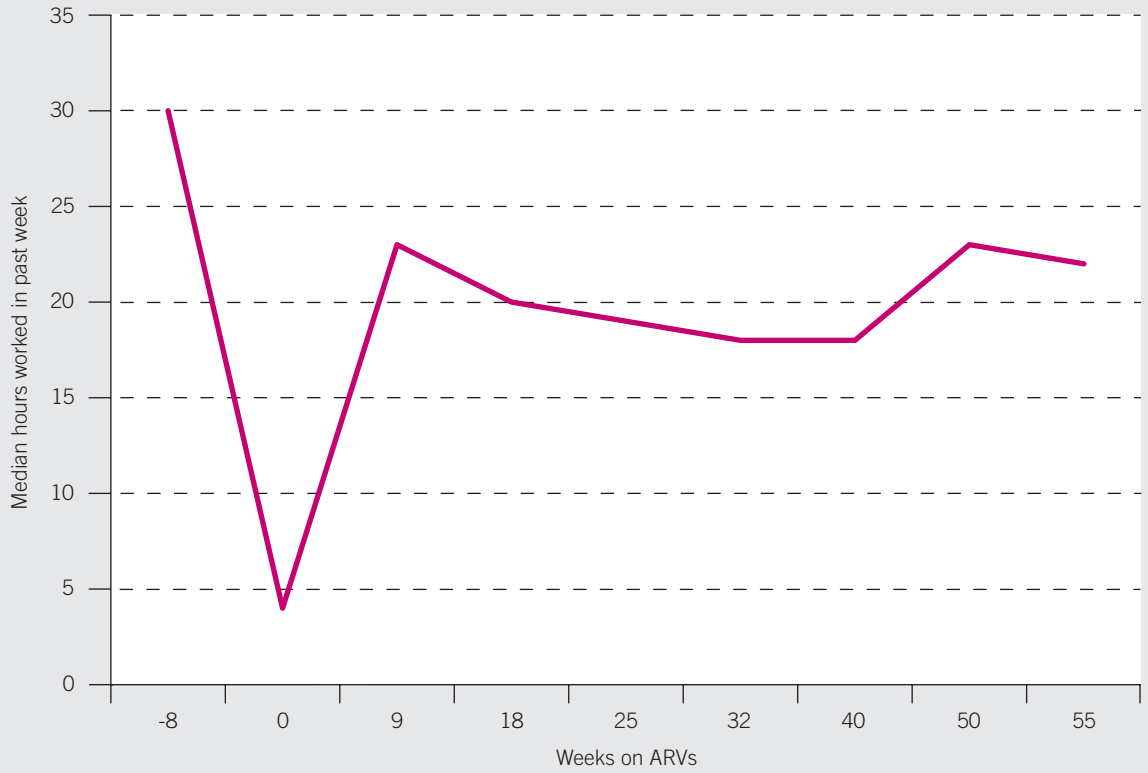
Source: Thirumurthy et al., 2006.

The economic model required that certain data be identified and incorporated to properly estimate productivity gained from ARVs. A spreadsheet model was developed that incorporated data on the efficacy of ARVs (survival time with ARVs relative to survival with no treatment), on average wages – in this case average incomes, and on labour force participation rates. To test the sensitivity of this model, more and less optimistic scenarios were developed for the gains in productivity as measured in time (months), and in US dollars. Both input and output indicators are measured with ARVs present and absent, and the scenario without ARVs is the baseline. Different scenarios of the model were developed on the basis of the time from the onset of AIDS to death with and without treatment i.e. 3.1 years and 1 year on average. The most favourable and least favourable cases for survival with and without treatment are assumed to be 4.5 years and 1.5 years following the literature on natural history and mortality of individuals living with HIV with and without ARVs. In the most favourable scenario, the labour force participation rates were assumed to be the current participation rates, as the activity rates of workers who were treated were not expected to exceed those of the general population. In the least favourable scenario, participation rates were assumed to be half the current rates, and in the intermediate scenario, participation was assumed to be at the average level for the two others. The least favourable case is consistent with the 2006 study in Kenya in which participation rates sharply decreased to 60 per cent before initiation of treatment.

The results show that ARVs have a positive effect on productivity (see Main table 2). For example, in the United Republic of Tanzania, a worker living with AIDS who is able to regain three-quarters of the current level of activity of the labour force would gain about 18 months of productive life with ARV treatment (see Table 3; Intermediate scenario). In the United Republic of Tanzania, this is equivalent to about $US 1,000 of monthly productivity gained, which is 20 times the average income. If the average worker living with HIV/AIDS who is treated is able to regain full activity at current levels, he or she would virtually double their productive contribution in monthly terms, and in $US terms (see Table 3; Most favourable scenario).

Given this effect on workers' labour supply and productivity, ARV treatment can have spillover benefits as it maintains the household income and allows other members to work less, and youth and children – especially young women and girls – to remain at school. This suggests that ARV therapy has a larger impact when viewed in terms of its effects not only on workers but also on the workers' family welfare and time allocation. Furthermore, the worker enterprise benefits from the treatment because labour costs – including absenteeism, training, and hiring new staff – are saved. Based on

Figure 2. Weekly hours prior to and after ARV therapy



Source: Thirumurthy et al., 2006.

the fact that treatment cost has fallen dramatically in resource-poor settings, results show that worker productivity would be much greater than the unit labour cost, which allows the firm to maintain or increase its profitability.

Moreover, by assuming that a worker would be unable to work and would die as a result of AIDS without access to treatment, the productivity estimates presented here are underestimated, as the gain is relative to a zero productivity baseline. In fact, the impact of the epidemic is more likely to be negative productivity in the situation where the enterprise is bearing or contributing to the AIDS-related costs of workers who become unable to work. The costs include not only the AIDS-related expenditures, but also the labour turnover costs

An ILO model of productivity returns to ARVs

The model rests on the 3 relationships:

- Life years gained are equal to survival with treatment less survival with no treatment (in years)
- Productivity gained (in months) is the product of life years gained (expressed in months) and labour force participation, or activity rates
- Productivity gained (in $US) is the product of productivity gained (in months) and the gross national income (GNI) per capita (expressed in $US/month)

The model assumes that workers have access to ARVs when they have symptomatic AIDS (i.e. they are in Stages III or IV; see general endnote 9) and/or their CD4+ counts have fallen to the index level of WHO guidelines for treatment (200 CD4+ cells per mm^3). The model also rests on the same assumption as that underlying the United Nations' projections of average survival of 3.1 years with ARVs, and 1 year without ARVs. The model does not include the cost of treatment per patient because of the limitations of these types of data by country. Also, because average wage data are not available for most countries included in the model, average income per capita (GNI/ca) was used as a proxy. This indicator appears to reflect better the average wage level than does gross domestic product per capita (GDP/ca).

incurred (for example, temporarily substituting, and then hiring, training, and replacing workers). The productivity of the co-worker who must cover for the absent worker, of the trainee and the new worker are in most instances lower than the productivity of the worker him or herself. Furthermore, the morale of all his or her co-workers can be deeply affected, which contributes to the overall loss in productivity.

Such estimates are a first step in evaluating the economic impacts of ARV treatment, which is critical to the evidence-based assessment of treatment programmes and efficient, rational allocation of resources. Many other factors also need to be considered. For example, ARV treatment diminishes the burden of care on both other income-earners and children, and postpones the onset of orphanhood for underage children. If ARV treatment of parents living with AIDS increases the likelihood that their children will stay in school and extend their years of schooling, then such impacts belong in any future cost-benefit analysis of this type.

Table 3. The ILO model applied to the United Republic of Tanzania

	Least favourable	Intermediate	Most favourable
ARV efficacy (years)			
Survival with no treatment	0.5	0.7	1.0
Survival with treatment	1.5	3.1	4.5
Survival gain (years)			
With no treatment	0.0	0.0	0.0
With treatment	1.0	2.4	3.5
Labour force participation rates (%)			
With no treatment	0.0	0.0	0.0
With treatment	42.1	63.1	84.2
Productivity gain (months)			
With no treatment	0.0	0.0	0.0
With treatment	5.1	17.8	35.4
Productivity gain ($US)			
With no treatment	0.0	0.0	0.0
With treatment	282.9	996.5	1 980.4
GNI per capita ($US/month)	56.0	56.0	56.0

Source: see text.

Chapter 3. The consequences of HIV/AIDS for children

Directly or indirectly, HIV/AIDS has life-threatening consequences for children when they are themselves born with HIV, when they lose one or both parents as a result of the epidemic, and when they themselves are exposed to the risk of HIV, whether in the pursuit of survival, or through engagement in the worst forms of child labour.

The sum of the impact of HIV/AIDS on children is reckoned in bleak statistics: the number of deaths of children, the number of orphans, the number of children engaged in child labour, and the number of children not in school. Main table 3 presents these figures dryly, but they speak loudly of the underlying damage to minors, whose rights to protection, support and guidance are violated by the threat to life itself. The ephemeral nature of a child's life in the resource-poor settings affected by the epidemic makes those rights seem luxuries.

The future of the labour force is imperilled by the epidemic in the worst-affected countries as a result of these effects on children. This impact of the epidemic undermines the process of human capital formation. Deaths of children deprive families and societies of their potential contributions, drain their resources, and sap morale. Such deaths are brutal and de-humanizing. Generations of surviving orphans do not have the support, guidance and education they need to gain skills, pursue opportunities for decent work, and contribute to their societies and their economies. When children become orphans, they have already been exposed to the traumatizing experience of watching their parents become severely debilitated and die. The fact that there are children engaged in child labour, and children who are exposed to the risk of HIV in its worst forms in the battle for survival, contravenes every fundamental principle of social justice, flagrantly violates the rights of children, and demeans the human lot.

Child deaths

The most tragic destiny for children is for them to be living with the disease themselves. UNAIDS estimates that 2.3 million children were living with HIV at the end of 2005, worldwide. The ILO has estimated that over 1.9 million children under 15 years were living with HIV in the 60 countries studied (see Main table 3). Among these children, 600,000 died as a result of AIDS in 2005 – for the most part because they were born to mothers who were living with HIV. These mothers could not protect their infants from the risk of transmission because they did not know they were HIV-positive, they had no access to ARVs to prevent transmission, because their treatment failed, or because they had no alternatives to breast-feeding.

AIDS takes an especially heavy toll on children in the resource-poor settings of the worst-affected countries in Sub-Saharan Africa. As many as 100 and more children are dying each and every day of AIDS in the Democratic Republic of the Congo, in Ethiopia, in Kenya, and in South Africa, and more than 200 every day in Nigeria. But it also takes a heavy toll in Asia, where more than 200 children die of AIDS each day in India.

The ILO and its constituents have an unexploited but important role in averting child deaths due to AIDS, through intensifying prevention and expanding access to ARVs in the workplace. Education of both men and women who are already parents or engaging in family-building is a potentially crucial aspect of prevention. Efforts to expand the reach of workplace policies and programmes to the informal economy, where most young women find their first – or only – form of employment are critical in this regard. Even if the ILO and its constituents may initially perceive that prevention of child deaths is the role of health-care delivery systems, the workplace can be essential to the prevention and treatment programmes needed to reduce the number of children who become HIV-positive at or after birth, in the same way as it is already acknowledged to be an ideal entry point for prevention and access to treatment for adults.

The majority of children who died of AIDS would have become orphans had they survived. Their brothers and sisters born before their mothers became HIV-positive, and their siblings born afterward who survived thanks to ARV prevention, became orphans in extra-ordinary numbers, especially in resource-poor settings. UNAIDS estimates that in 2005 there were 12 million orphans in Sub-Saharan Africa alone as a result of AIDS.

Orphans

One of the most extensive and measurable impacts of the HIV epidemic is the growing number of children who become orphans as a result.[25] The situation of orphans has become a crisis and one of the greatest challenges to development. The worst-affected countries are those with high HIV prevalence, but the problem is

compounded in countries that have also recently known armed conflict.

In the very short period 2003 to 2005, the global number of orphans due to AIDS increased from 12.6 million to 15.2 million. The vast majority – 12 million in 2005 – live in Sub-Saharan Africa where the number of orphans swelled by 1 million each year (10.2 million in 2003 to 12 million in 2005) as a result of AIDS.[26] The number of children orphaned by AIDS is now increasing at an unprecedented rate as increasing numbers of parents progress from being HIV-positive to symptomatic AIDS, advanced illness and death. It is estimated that the number of children orphaned by AIDS will continue to rise or remain high for at least the next ten years as a reflection of the duration of the early stages of HIV and AIDS.[27]

In this way, UNAIDS estimates that 20 million African children will have lost either one or both parents by 2010. These estimates for Africa indicate that 1 in 6 children in Zimbabwe, 1 in 8 or 9 children in Botswana, Lesotho, Swaziland and Zambia, and between 1 in 12 and 1 in 20 children in the Central Africa Republic, Congo, Côte d'Ivoire, Kenya, Malawi, Namibia and South Africa was an orphan as a result of AIDS by 2005. In 2003 alone, 15 per cent or more of all orphans were accounted for by 5 countries in Southern Africa (Botswana, Lesotho, Namibia, South Africa and Swaziland). By comparison, the number of children orphaned by AIDS in Sub-Saharan Africa amounted to fewer than 1 million in 1990. Figure 3 traces the growth in the estimated and projected number of double orphans (children who lose both parents) in Sub-Saharan Africa from 1990 to 2010.[28] The trends are driven by AIDS, which is responsible for most orphanhood since about 2000.

Orphanhood as a result of AIDS is a process that can affect a child for a substantial proportion of her or his life. Children begin to be affected by HIV/AIDS long before they are orphaned, early in a parent's illness, and its impact continues and grows through the course of the illness until the death of the first parent, and then, in the case of double orphans, of the second parent. The death of one or both parents then has an enduring impact on the child throughout his or her development that lasts for years, and well beyond parental death.

The destructive impact of HIV/AIDS on children begins when one parent becomes ill. Often, they are already living in a poor household. When the parent becomes ill, children are expected to shoulder new responsibilities, and their ages and capabilities may be ignored when they are pushed before they are ready to take over household responsibilities. Their tasks can include domestic chores that they would take on eventually anyway, such as fetching water or firewood, preparing food or cooking, as well as childcare for younger siblings; but they may have to take on this work when younger than usual. Their tasks also include caregiving activities for sick relatives and income-earning activities at a time when young children are developmentally and educationally ill-prepared for either of these responsibilities.

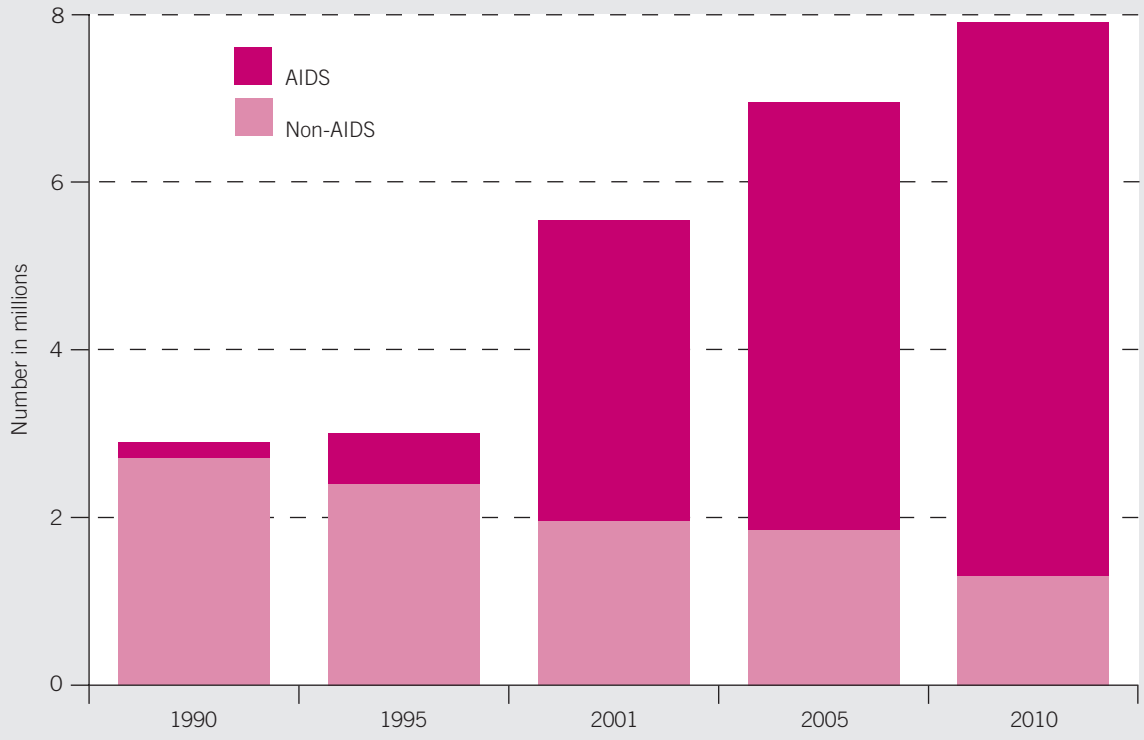
When a parent becomes so ill that she or he is fully unable to work inside or outside the home, the income of the household diminishes. Another adult may be able to assist at this time, including grandparents. Often there are no options however, and children then need to work in agricultural or other income-generating activities that enable the household to pay medical expenses and to provide subsistence. In settings where school fees are required, children may work at first only to pay school fees. School attendance becomes more difficult however, as the time dedicated to work increases, and children in households living with HIV/AIDS often ultimately drop out.

And so these children find themselves prematurely out of school, shouldering demands to work inside and outside the home that they are far too young and ill-prepared to meet, and facing the loss of one or both parents. For children who lose one parent to AIDS, there is a high probability that the other parent will also die. Eventually, therefore, the children become fully deprived of the support, guidance and protection of their parents or caregivers. Surveys show that double orphans are more disadvantaged than single orphans. In the United Republic of Tanzania for example, school attendance for children whose parents are alive and who live with at least one parent reaches 71 per cent, whereas it falls to 52 per cent in the case of double orphans. Traumatized by parental loss and underprepared for the responsibility of surviving on their own, orphans are likely to suffer developmental problems and be subjected to health risks including malnutrition, as well as to suffer from psychosocial distress.[29]

Moreover, many children in Africa live in foster families, and the impact of the loss of a relative on a fostered child can be as great as the loss of a biological parent. To date, no methodology is available for estimating the number of all these other children made vulnerable by AIDS. Although children living in foster families affected by HIV/AIDS are therefore unreported in most research on the topic, they face the same serious social, developmental and health problems as biological orphans, as well as similar economic hardships due to orphanhood.

Little is known about the arrangements that parents might make for the care of their children in the event of their death. In an early study in Kenya, in Nyanza Province in 1997, only 3.7 per cent of sick parents had made arrangements before they died for their children to live with friends or relatives. Furthermore, caregivers are rarely left any money or assets by the parents for child support because the parents have often exhausted whatever assets they had to pay for subsistence and any medical expenses. By tradition, most caregivers become so by virtue of being next of kin or the closest relative in the home, whether the charge is welcome or not. Accordingly, studies show that following parental death, grandparents, aunts and uncles, and adult siblings assume responsibility for the vast majority of orphaned children. Household surveys confirm that in Southern Africa, for example, 20 per cent of all households with children care for one or more orphans. But even when taken in, they may experience discrimination and stig-

Figure 3. AIDS double orphans in Sub-Saharan Africa, 1990-2010



Source: UNICEF et al., 2004.

matization, and can fall prey to abuse and exploitation. Moreover, the suffering that the child endures as a result of the illness and death of parents is often compounded by separation from siblings.

They are often exposed to harsh conditions even in the homes of their extended family. Studies in several countries have shown that orphans have generally fewer opportunities for schooling and education, are more exposed to sexual exploitation and the risk of sexually transmitted infections (STIs) and HIV, whether in the workplace, in the households where they live, or directly in prostitution itself. Orphanhood puts a child at high risk of economic exploitation including child labour, and studies show that orphans are twice as likely to work as children who are not orphans, especially in Africa. Orphans may be forced to migrate in search of work opportunities, and may end up working in the worst forms of child labour such as prostitution and other illicit activities. One study in Uganda found that 60 per cent of children affected by HIV/AIDS were themselves migrants.[30]

The communities and families that take in orphans may also suffer discrimination and be subjected to other forms of stress that have an impact on the children. Children are more negatively affected in situations where their close or extended family, their community and more broadly the institutions that are created for children – in particular the education and social service sectors – are all also heavily strained by the consequences of the HIV/AIDS epidemic. In these situations, the adult population of care-givers – family members, foster parents, educators and public service workers – is being severely depleted at the same time that children need them more. Although fostering orphans is a common practice, especially in African societies, the rapid rise in the number of orphans may overwhelm the traditional support system of the extended family. Many of the households that are taking in orphans are poor, and taking in orphaned children represents a significant burden. In some countries severely affected by HIV, the increase in the number of parental deaths is so rapid that the increasing burden of care for orphaned children is becoming impossible for relatives and communities to fulfil. If there are choices to be made, girl orphans may be favoured, because they are more easily absorbed into new homes as household help, are more likely to move away when married, and may even bring in a traditional brideprice to their adoptive families upon marriage.

Child-headed households

Although many children whose lives and development are disrupted by AIDS eventually live with other relatives

– and there is a chance that the change provides them with better living conditions – orphaned children are being left in increasing numbers without a guardian as the epidemic matures and its impact deepens. As a result, the number of child and adolescent-headed households is increasing, and tolerance for child-headed households now represents the inevitable adjustment of communities in coping with the impact of AIDS.

> *If orphans as a group face unusual hardship emotionally, materially, and educationally, children who are raised by other children, or who themselves raise children, are exceptionally disadvantaged. Every orphan is harmed individually by the trauma and deprivation of his or her personal experience. Together they comprise entire generations of children who experience the worst that life has to offer. The future of nations is ineluctably harmed by the stunting of their development and the growth in human capital that is needed for societies and economies to progress.*

Children running or living in child-headed households must generally fend for themselves and manage their own activities without the supervision of an adult. In some cases children receive regular visits and support from relatives, but research shows that in communities severely stressed by AIDS, a large proportion of child-headed households known to have living relatives do not receive material support from them. There have been reports that an answerable adult who is close by might take responsibility for orphans when there are anticipated rewards. An earlier micro-study in Zimbabwe looking into the circumstances leading to child-headed households found that in about a third of cases there had been no known relative to care for the orphans, and in most other cases, relatives were reported to be simply unwilling to take them in. In a minority of cases, the orphans did not want to live with the relative.

There is little information on the proportion of orphans involved, the duration of such situations or how the children fare over periods of several years. Earlier small-scale studies of child-headed households in a few Sub-Saharan countries suggest that the prevalence was 3 per cent of all households in a heavily affected district of Uganda (Rakai), about 0.5 per cent of households in Zimbabwe and 0.3 per cent in Tanzania. The proportions are likely to be underestimated, as these households may not be visible: for example, very early studies found that of Ugandan households that had experienced a death in the prior 10 years, about 1 per cent were headed by children under 18 years already in 1992, and in Kenya (Nyanza Province), 5.2 per cent of households comprised 2.6 minors on average and had no living-in guardian.

If orphans as a group face unusual hardship emotionally, materially, and educationally, children who are raised by other children, or who themselves raise children, are exceptionally disadvantaged. Every orphan is harmed individually by the trauma and deprivation of his or her personal experience. Together they comprise entire generations of children who experience the worst that life has to offer. The future of nations is ineluctably harmed by the stunting of their development and the growth in human capital that is needed for societies and economies to progress.

School enrolment

One of the first forms of damage inflicted by the HIV epidemic on children comes from the household's need to withdraw children from school. Children drop out of school because their labour is needed in the household – to meet the increased burden of care for the sick and dying, care for younger siblings, or take over household chores; because their labour is needed to supplement or provide the essential part of household income; because the household can no longer afford school fees and other school expenses (shoes, clothing or uniforms, transportation, and so on); or to meet expenses that compete with school fees, notably medical expenses due by AIDS. Even if children are not entirely withdrawn from school, they may be called on to shoulder additional responsibilities that deeply affect their ability to study, because their time and attention are diverted by the demands and events in the home. A study of AIDS-affected households in 3 South African provinces found that over 40 per cent of primary caregivers took time off work or school to care for a family member ill with AIDS.

In this way, AIDS seriously aggravates the existing difficulties in the building of human capital in developing countries. At least 100 million children in developing countries are still not yet enrolled in primary school. More than a third of primary school children fail to reach the last grade in more than 40 countries, which is a basic cause of illiteracy. Nearly 800 million people who are 15 years and over live without literacy skills which are the basic tools to escape poverty.[32] In many countries, even without the impact of AIDS, school fees and materials are unaffordable to families, depriving millions of children of a decent education. But the HIV epidemic gravely compounds these problems, by creating orphans and by worsening gender inequalities. In addition, the shortage of teachers is growing around the world, and the epidemic is increasing this shortage, particularly in countries severely affected by HIV/AIDS, where the entire educational sector is being depleted and weakened.

School fees

School fees pose a significant problem for AIDS-affected households and comprise the primary reason why children are withdrawn from school, as families who are already impoverished by the illness in multiple ways cease to be able to afford them. Since 2000, several of the countries affected by the epidemic are known to have reduced or eliminated primary school fees, notably Guatemala, Kenya, the United Republic of Tanzania, Uganda and Zambia, although in some cases there may still be related charges. A more recent global survey indi-

Orphans and school attendance

Orphans are more likely than other children to be removed from school, although the degree of poverty of the household, the age of the orphan, the child's stage of development, and the orphan's relationship to the guardian all influence school attendance. It can also be profoundly influenced by culture and the cultural demand for children's work. For example, absenteeism of school children is very low in Botswana, and orphans in fact have better attendance records than non-orphans in primary schools. Botswana has a strong schooling culture and household demand for children's work is low. In Uganda and Malawi, on the other hand, absenteeism is higher among orphans than non-orphans.

Studies show school attendance rates for orphans with neither parent to be lower than for children with both parents alive and children living with one parent, and the educational disadvantage tends to be greater where overall school attendance is already low (for example, for 10 to 14 year-olds, the enrolment rates across 40 countries are 60 per cent for children who lost both parents compared with 71 per cent for children with both parents or living with one parent). Similarly, research in the United Republic of Tanzania found school attendance of orphans who had lost one parent to be 71 per cent, whereas the proportion of children who had lost both parents and were in school was only 52 per cent. In Burundi, also, becoming a single orphan reduces full-time school attendance by 11 per cent, and the loss of both parents has an even greater negative effect on school attendance.

Research indicates that orphans' living arrangements can also play a critical role in determining their well-being, school attendance and safety, which can depend on the degree of relatedness between orphans and their adult caregivers. A study of 10 Sub-Saharan African countries found that children living in a household headed by non-relatives were at an enormous disadvantage in terms of school enrolment, having an enrolment which was 46 per cent lower than that of children whose parent was the head of household.[31] Household poverty itself led to substantially lower enrolment for all children, but orphanhood resulted in an educational disadvantage over and above that arising from poverty. In situations such as these, orphans are at real risk of falling out of family care as well as school, and of becoming street children, exposed to abuse or exploitation of various forms.

cates that there are now (in 2006) at least 5 countries affected by HIV/AIDS where primary education is *completely* provided by the government, namely in Cambodia, Guatemala, the United Republic of Tanzania, Gambia, and Zambia.

The charging of any fees remains a major barrier to progress towards universal primary education. Policies to facilitate or fund children from AIDS-affected households and communities to go to school should be encouraged wherever possible to enable children to stay in school. Yet despite recognition of the gains that result from eliminating fees at the primary level, an informal survey carried out around 2005 found that 38 of the countries affected by HIV/AIDS charged some type of fee in primary education, that was legal in some cases and illegal in others (see Table 4).[33] Moreover, other indirect cost items may remain high, such as registration (including photographs for identity cards), learning and personal hygiene materials, uniforms, sports equipment, transportation and food.

Gender effects

The sex of the parent who dies and the sex of the child in a household living with HIV/AIDS are two factors that have a strong influence on a child's school attendance.[34] The consequences following the death of a mother may be especially far-reaching, because of the traditional role of women as main caregivers. If the father is ill, children may be less likely to stop their schooling. A study in Zimbabwe found that the proportion of children attending school fell after the death of a mother, from 98 to 80 per cent in urban areas, and from 100 to 93 per cent in rural areas. Similarly, a study in the United Republic of Tanzania found that children's enrolment was lower when a household had experienced the death of a woman between 15 and 50 years in the preceding 12 months, whereas there was no association between school enrolment and the death of a man aged 15 to 50 years. If the mother is ill with HIV, girls are needed more particularly for household duties. Girls in AIDS-affected households more often stay at home to

Table 4. Legal, illegal and mixed school fees from informal surveys, 38 countries, around 2005

Legal fees	Benin; Burundi; Cameroon; Chad; Côte d'Ivoire; Dominican Republic; Eritrea; Guinea; Guinea-Bissau; Guyana; Haiti; India; Madagascar; Niger; Russian Federation; Rwanda; South Africa; Swaziland; Thailand; Togo; Trinidad and Tobago
Illegal fees	Brazil; Ethiopia; Ghana; Honduras; Lesotho; Liberia; Mozambique; Namibia; Nigeria; Uganda; Ukraine
Both types of fees	Burkina Faso; China; Democratic Republic of Congo; Djibouti; Ecuador; Kenya; Mali

Source: Bentaouett-Kattan (2005); UNESCO, 2006a.

care for sick relatives. Upon the death of a woman, the children tend to replace her domestic roles in the short run and to drop out of school in order to do so. In 3 South African Provinces, nearly 10 per cent of households had removed a girl from school whereas only 5 per cent had removed boys. School absenteeism in AIDS-affected households was already found to be significantly higher for girls than boys in southern Uganda in 1997. The study found that the proportion of girls in the households affected by AIDS who missed more than 14 days in the two years prior to the survey was significantly higher than that of boys (73 versus 59 per cent) when compared to households not affected by AIDS and to the situation of boys in both types of households.

Through these different effects, AIDS worsens gender inequalities and household poverty which both already underlie the HIV epidemic and are among its important root causes. Girls are already less likely to be enrolled in school than boys, and 55 per cent of all children not enrolled in schools in developing countries are girls.

School drop-out can compromise children's psychosocial development and future prospects. It is particularly damaging for children living in families with AIDS and facing parental loss because it denies them a sense of continuity and security in the short term when they need a stable source of support. In the long term, it deprives them of the opportunity to acquire knowledge and skills needed for adult life. Furthermore, research shows that education in both form and content can provide children with the information, negotiating skills and self-esteem that protect them as children, prevent HIV transmission in young people, and offer succeeding generations better chances to escape poverty and its associated risks. An early study in 32 countries found that literate women were 4 times more likely than illiterate women to know the main ways to prevent transmission of HIV. Schools can play an active role in mitigating the spread of the disease by providing reliable information and counselling, and taking measures to prolong girls' education.

Children's work and school attendance

> *School is not a priority when parents are sick or dying and their child has to earn money.*
>
> UNAIDS, 2003

Some research on children who both work and attend school has suggested that the only negative impact of work is when it prevents children from regular attendance, because children in school who work perform at the same level as children in school who don't work. They encounter the major problem, however, that if and when they attend irregularly, they can be dismissed from the school system. Other research shows, however, that work slows the pace of progression through school and the quality of school attainment through attendance. A recent study in Uganda, for example, found that even when working children stay in school, their attendance is irregular, averaging 3 to 4 times a week for fewer than 6 hours a day.[36]

In sum, children's work may have an adverse effect on learning and good performance while in school, even when it does not have a large effect on enrolment. Therefore although school and work may not be mutually exclusive, working children will complete fewer years of schooling than children who do not work.

Consequently, children who work as well as attend school are disadvantaged relative to children who don't work, and relative to their own potential. In the long run, children who work and attend school will be short-changed with respect to educational opportunities and their earning power as adult workers. At the extreme, children who work are hobbled in their attempts to escape poverty, and are more likely to stay in poverty, thereby remaining exposed to all the inherent risks of HIV that are poverty-driven.

To conclude, children living in a world with HIV/AIDS are at substantial educational disadvantage as they often have to work or take care of sick relatives or siblings. Staying in school offers these children the best chance to benefit from HIV school health prevention programmes in the short run, and to work their way out of poverty and its associated risks in the longer run. Education is in every sense one of the best HIV vaccines or means of prevention for children.

> *Education can be viewed as a "social vaccine" against the HIV/AIDS pandemic.*
>
> UNAIDS, 2004b

Policies and programmes that can optimize school enrolment and the school performance of children affected by HIV/AIDS should be paramount concerns to the world of work to ensure the long-term well-being and quality of the labour force. They should include measures to keep children in school such as the establishment of free primary and secondary schooling and targeted support for orphans, as well as measures to ensure economic support and alternative labour safety nets in households living with HIV/AIDS.

Importantly and crucially, children who drop out of school prematurely and are deprived of parental guidance and protection are at great risk of exploitation in the form of child labour. The link between the abolition of child labour and Education for All (EFA) has been acknowledged, notably through the establishment of a Global Task Group at the Beijing EFA High Level Meeting in November 2005 (comprising the ILO, UNESCO, UNICEF, the World Bank, and the Global March Against Child Labour). As the ILO has underlined in its most recent report on child labour, mass education is an important prerequisite in tackling child labour in tandem with poverty reduction.[37]

HIV/AIDS and child labour

Studies of the linkages between HIV/AIDS and the occurrence of child labour increasingly confirm their

School health programmes: promoting HIV prevention in schools

According to 2005 information from 58 low and middle-income countries, 74 per cent of primary schools and 81 per cent of secondary schools provide HIV/AIDS education overall. The proportion of schools providing an HIV life-skills based educational curriculum varies substantially, however: in Malawi and Swaziland, 90 per cent of schools are covered, whereas Côte d'Ivoire, Honduras, Nigeria, and Togo reported only about 1 in 5 schools covered. Research in 2003 showed that differences occurred by level of prevalence (high prevalence countries tend to provide better educational coverage), and level of education (secondary schools generally have better coverage than primary schools and more often have curricula that address HIV/AIDS). Both materials' development and teacher training were reported higher at the extremes of prevalence (the lowest HIV and highest HIV prevalence countries) than in *medium* prevalence countries that were reaching their objectives more slowly.

Various initiatives have been established that can assist stakeholders to elaborate training, teaching and learning materials on HIV/AIDS.[35] The following list provides some examples:

- The International Clearinghouse on Curriculum for HIV/AIDS Education collects, analyses and disseminates information on education for the prevention and mitigation of HIV/AIDS at the school level (primary, secondary and teacher education): *International Clearinghouse on Curriculum for HIV/AIDS Prevention, UNESCO IBE: Global Content Bank.*
- UNICEF developed various training materials for teachers such as: (i) *HIV/AIDS Prevention Education: Teacher's Guide (China)*, a guide intended as a Life Skills education manual for teachers of junior and high school (UNICEF, 2001); (ii) *Learning about HIV/AIDS in Primary School* consists of over 60 life skills-based lessons to teach primary schoolchildren about HIV/AIDS, caring for people living with HIV/AIDS, and stopping stigma and discrimination (UNICEF, 2002). (iii) UNICEF elaborated with the Government of Myanmar various *SHAPE teachers manuals on School-Based Healthy Living and HIV/AIDS Prevention Education* (UNICEF, 2002).
- Education International and WHO produced a *Training and Resource Manual on School Health and HIV/AIDS Prevention* designed to strengthen teaching and advocacy skills of teachers and trade union leaders (EI/WHO, 2001). The Regional Office for the Western Pacific of WHO also prepared a briefing kit for Teachers on Sexually Transmitted Infections (WHO, 2001). Education International, WHO, and Education Development Center, Inc. (EDC) also worked in partnership with UNESCO, UNICEF, the World Bank and others on school health and HIV prevention, elaborating the EI/WHO/EDC teacher training programme to prevent HIV infection and related discrimination through schools.
- UNESCO elaborated the *Characteristics of Successful Health Education Programmes to Prevent HIV/AIDS*, (UNESCO, 2004). UNESCO Bangkok also elaborated various teaching and learning materials for HIV/AIDS prevention and adolescent reproductive/sexual health between 1998 and 2001
- USAID prepared a practical guide for planning, implementing, or strengthening life skills curricula for young people in Sub-Saharan Africa*: Tips for Developing Life Skills Curricula for HIV Prevention Among African Youth: A Synthesis of Emerging Lessons* (USAID, 2002).
- WHO/UNESCO/UNAIDS prepared a resource package to assist curriculum planners to design HIV/AIDS/STD education programmes for their own school systems, for students aged between 12 and 16 years (WHO/UNESCO/UNAIDS, 1999).
- The International Federation of Red Cross and Red Crescent Societies developed a resource package of educational activities with young people, designed to help young people working with peers to set up an effective HIV/AIDS health promotion programme (IFRC, 2000).
- Numerous other academic institutions, and NGOs such as Family Care International and the Peace Corps, have prepared educational documents on HIV/AIDS.

interrelation.[38] HIV/AIDS raises the exposure of children, especially children from poor households and orphans, to the risk of child labour as the epidemic exerts growing economic pressure on households. When a household affected by HIV/AIDS faces impoverishment, one strategic response is for a non-working family member to become an income-earner. When the illness of one or both parents leaves them unable to work, children may be sent out to work. Following the death of one or both parents, orphans often have little choice than to work when they lose the social and economic protection of their parents.

> *Poverty is a determinant of both child labour and of the risk of contracting HIV. Moreover, the links between poverty and child labour increase the risk of exposure to HIV, through the abuse and sexual exploitation of children. These interactions lead to a vicious cycle as poverty and exploitation arising from HIV affect the next*

The impact of HIV/AIDS on school performance and the quality of education: the role of the ILO

HIV/AIDS and children's work affect the educational attainment of orphans and children living in AIDS-affected families with respect to enrolment, attendance and performance. Ensuring access to education of all orphaned children and children living in households affected by HIV/AIDS is critical because the destiny of the children affects a country's long-term recovery from the epidemic. Although the enrolment of children in school is a crucial step in avoiding their eventual involvement in child labour and thereby being exposed to HIV, however, ultimately the benefits of education depend on the performance of children in school. Their performance is an outcome of the *quality of schooling* as well as the attendance and diligence of children.

There is a global and long-recognized shortage of quality teachers to meet growing enrolment needs, even before the HIV epidemic is taken into account. But HIV/AIDS is aggravating the shortage, particularly in heavily affected countries which face shortfalls in the sheer numbers of teachers required. It has been estimated that in 1999 alone, 860,000 children in Sub-Saharan Africa lost their teachers to AIDS.

The shortage in quality teachers constitutes a fundamental obstacle to working children being able to benefit from the education and training they need to access decent work. Education and teachers play an important role in the prevention and elimination of child labour. The ILO supports the 2006 Education for All campaign *Every Child Needs A Teacher*. Since 2004, the ILO has worked with more than 20 countries through an action programme – Teachers for the future: Meeting teacher shortages to achieve Education for All – to address the information gaps, assess needs for teachers and develop and apply policy solutions. The ILO has also helped its tripartite constituents to develop specific workplace-based policies on HIV and AIDS for all types of educational institutions. The policies are guided by the *ILO code of practice on HIV/AIDS in the world of work* (ILO, 2001).

The ILO has collaborated with UNESCO to develop guidelines for a workplace policy on HIV/AIDS for the education sector in the Caribbean and in Southern Africa. These guidelines seek to make schools safe, healthy and supportive places of work for staff and pupils, and promote the inclusion of HIV in curricula at all levels as well as in non-formal education for families of pupils and the local community (ILO and UNESCO, 2006a, 2006b).

generation of adults living with HIV who marry and raise children ...

HIV/AIDS is neither the only nor the principal cause of child labour. Poverty is the primary cause of child labour, and it is probably the impoverishment caused by AIDS that has intensified the need for girls and boys to work. Due to the growing convergence of poverty and HIV, many working children are living in households affected by HIV, or are orphans due to AIDS. Analysis of the Zambia Child Labour Survey of 1999 found that children orphaned by AIDS were twice as likely to work as other children;[39] a rapid assessment study in Zambia in 2002 estimated that HIV/AIDS increased the child labour force by between 23 and 30 per cent.[40] A survey in Uganda in 2004 found that over 95 per cent of children living in AIDS-affected households were engaged in some type of work: 88 per cent were involved in domestic chores, and 81 per cent of them worked for more than 16 hours per day – 49 percent for in-kind payments, and 41 per cent for cash. Sixteen per cent of the children working – mostly girls – worked both day and night.[41]

Rapid assessments and thematic studies of working children carried out between 2002 and 2004 by the ILO in Cameroon, Malawi, South Africa, the United Republic of Tanzania, Uganda, Zambia, and Zimbabwe have confirmed the strong impact of HIV/AIDS on child labour, in particular following the loss of one or both parents as a result of AIDS.[42] In Cameroon, 47 per cent of working children started to work after the death of a parent or a foster-parent, in most cases due to AIDS. The 2004 survey in Uganda found that 58 per cent of the children affected by HIV/AIDS who were working were already orphans and their purpose was to support themselves. These studies have generally revealed that children in AIDS-affected families are more likely than other children to be engaged in child labour in commercial agriculture, domestic service, prostitution and street vending in return for cash, in-kind remuneration, or food.

Although most studies on HIV/AIDS and child labour have been carried out in Sub-Saharan Africa, similar findings come from research in Asia: a study in Cambodia found that a fifth of children in AIDS-affected families had started work in the preceding 6 months to support his or her family.[43]

For many families impoverished by AIDS, children's work comes to represent a significant source of household income. The result, however, is that working children are much more likely to drop out of school earlier than non-working children. This situation can give rise to two potentially damaging outcomes. First, children engage in a variety of work to contribute to household earnings, and some forms lead directly to child labour. When children are desperate to find work, the likelihood increases that they find work that

engages them in the worst forms of child labour, including prostitution and domestic work where there is a high risk of abuse and of direct exposure to HIV. Second, leaving school makes it more likely that children will remain uneducated and grow up to know poverty as adults, which raises their general level of exposure to the risk of HIV. Lack of schooling means they will in turn face more difficulties in accessing decent work when when they become adult. In this way poverty, lack of schooling and children's exposure to exploitation – including the worst forms of child labour – all lower the probability of access to HIV prevention while raising the probability of exposure to HIV in the short or the long term.

In this way also, poverty puts many children directly in harm's way because it is a root cause of child labour. The involvement of children in income-generating activities on the street exposes them to HIV and to the other risky behaviours of peers or adults who buy merchandise from them. In an ILO study in Malawi, common risky behaviours reported for children included smoking tobacco, abuse of various types of drugs, sexual promiscuity, beer drinking and violence. In addition, the children faced abuse by peers and older people, including being forced into early marriage for money.

As damaging as these direct risks are, children are also traumatized by the loss of the protection and guidance of parents, which deprives those living in a high-HIV environment of the learning and values they need to become socially knowledgeable and economically productive adults.

Domestic work

The HIV epidemic has greatly increased the social cost of caring for sick people and orphaned children for households and communities. In many HIV/AIDS-affected families in developing countries, some orphans and children carry out household chores in other people's homes – domestic work – such as cooking or laundry, nursing sick parents, caring for younger children and older persons, home construction and agricultural tasks in addition to any income-generating activities. A study in Uganda revealed that care for sick family members meant the children had their sleep interrupted when called to provide services. Domestic chores can be excessive or exploitative and may constitute a form of child abuse. In some countries, hazardous domestic work, such as working as domestic servants, has been accepted as one of the worst forms of child labour.

Gender aspects of child labour

Rapid assessments conducted by the ILO confirm the greater involvement of girls in household chores, including care for sick relatives. Societal norms often influence the time allocation of girls and boys as well as the nature of the tasks girls and boys perform. It often results in women and girls having a much heavier share of care-giving tasks than men or boys. Accordingly, girls are far more often involved in domestic work and are exposed to a different level of HIV risk compared to boys (see box above).

Gender aspects of HIV/AIDS and child labour

HIV risks

- Girls are generally at higher risk of being sexually abused and of becoming HIV-positive through their work than boys.
- Girls are at higher risk of becoming HIV-positive through prostitution and sexual exploitation or through sexual abuse from employers.

Child labour risks

- Girls are more likely than boys to stay at home and look after ill parents or younger siblings, thereby foregoing their education. Boys are kept in school longer
- Boys are more likely to find themselves in hazardous labour in the fields, plantations and in mines. As paternal orphans, they may be expected to replace the father as the principal provider in the family.

There are no internationally accepted measures of child labour at present that include household chores. Efforts at addressing child labour challenges and the rehabilitation of working children should take into account the working children, especially girls, who engage in unpaid domestic labour in the home.

The UN Commission on the Status of Women has drafted a resolution *Women, the Girl Child and HIV/AIDS* that takes into account the specific problems faced by women and girls affected by HIV/AIDS, and which is tabled for discussion by the UN General Assembly in the fourth quarter of 2006 (see box overleaf).

Child work and child labour

According to the ILO's 2006 report, it is estimated that 191 million children aged 5 to 14 years were at work globally in 2004, which means that nearly 16 per cent of the world population of children under 15 years – or 1 in every 6 children – was working. The total number of working children 5 to 17 years was estimated at just over 317 million in 2004, indicating that about 126 million youth aged 15, 16, and 17 worked in 2004. More boys than girls under 18 were working (54 and 46 per cent of all working children).

Not all children's work is characterized as child labour, even if many forms of child work are not sanctioned by international conventions.[44] According to IPEC global estimates, however, a very great majority of children working should be considered as exploited in child labour and the great majority of the children

Resolution on Women, the Girl Child and HIV/AIDS

On March 10, 2006, the UN Commission on the Status of Women adopted at its 50th session a significant resolution on Women, the Girl Child and HIV/AIDS. The resolution places women and girls at the centre of the response to HIV/AIDS and stresses that "women have the right to control over and decide freely and responsibly on matters related to their sexuality, including sexual and reproductive health, free of coercion, discrimination, and violence." The Commission on the Status of Women is "[c]oncerned that the vulnerability of women, girls and adolescents to HIV/AIDS is increased by their unequal legal, economic and social status as well as other cultural and physiological factors, violence against women and girls and adolescents, early marriage, forced marriage, premature and early sexual relations, commercial sexual exploitation and female genital mutilation." The Commission was also "concerned that HIV infection rates are at least twice as high among young people, especially young and married women, who do not finish primary school as among those who do."

Among other things, the Commission on the Status of Women:

"3. Expresses its concern that the HIV/AIDS pandemic reinforces gender inequalities, that women and girls bear a disproportionate share of the burden imposed by the HIV/AIDS crisis, that they are more easily infected, that they bear the disproportionate burden to care for and support those infected and affected by the disease and that they become more vulnerable to poverty as a result of the HIV/AIDS crisis; (...)

7. Urges Governments and other relevant stakeholders to address the challenges faced by older women caring for people living with or affected by HIV/AIDS, including orphaned grandchildren; (...)

28. Stresses the importance of ensuring that young men and women have access to information and education, including peer education, and youth-specific HIV education, sexual education and services necessary for behavioural change, to develop the life skills required to reduce their vulnerability to HIV infection and reproductive ill health, in full partnership with young persons, parents, families, educators and health-care providers; (...)."

Source: United Nations, 2006.

being exploited are performing hazardous work, without counting children who are engaged in the remaining worst forms of child labour [45] (see Table 5).

Of all children working under 18, 69 per cent were exploited in child labour in 2004, more than 58 per cent of them performing hazardous work. Of children under 15 years, 87 per cent were child labourers, with 45 per cent of them engaged in hazardous work. More than 76 per cent of all child labourers were under 15 years. Of child labourers 5 to 14, there were more boys (51.3 per cent), but of child labourers aged 5 to 11 years more than half (50.7 per cent) were girls.

Table 5. Numbers of working children, child labourers, and children performing hazardous work aged 5 to 14 and 5 to 17 years, global estimates, 2004

	Numbers of children by age group (millions)	
Level of work	5 to 14 years	5 to 17 years
Working children	191	317
Child labour	166	218
Hazardous work	74	126

Source: ILO/IPEC, 2006a.

Although global estimates of child labour have been determined, reliable data are not available for each country in the world on the proportions of children working, according to the nature of their work. As a result, there are data for only 38 of the 60 countries most affected by HIV and AIDS (63 per cent of countries). The data available include total proportions of children working, proportions of children who work only, and proportions who both work and attend school, for children under 15 years, by sex and for boys and girls combined (see Main table 3). Table 6 below presents the estimated numbers of working children for the same 38 countries, based on the proportions given in Main table 3 and the United Nations' population estimates for children in 2000.[46] It should be noted that the starting age to measure child work varied between 5, 7, and 10 years according to country.

Table 6 shows that for the 38 countries with data among the most affected by HIV/AIDS, it is estimated there were over 46 million working children in 2000, including all forms of work. Applying the same proportions of the 191 million children under 15 years working worldwide who were estimated in 2004 to be children exploited in child labour (87 per cent) and among them, children performing hazardous work (45 per cent), the data in the table suggest that 40 million children were exploited in child labour, and 18 million children were performing hazardous work in these 38 countries.

In Africa alone, 31 million children are estimated to have been working in 2000, of whom 27 million could be characterized as child labourers, and among whom 12 million children are estimated to have been performing hazardous work. Furthermore, on the basis of a rough estimate of the numbers of working children in the remaining countries of Sub-Saharan Africa (about 22 million children in 12 countries), it can be reasoned that for the 40 countries of Sub-Saharan Africa as a whole, about 53 million children were working, of whom 46 million were in engaged in child labour and 20 million were performing hazardous work.[47]

Table 6. Estimated proportions and numbers of working children, children who only work, and children who work and attend school, boys and girls, 38 countries, 2000

	Total estimated proportion of working children aged 7* to 14 years (per cent)	Estimated numbers of working children aged 7* to 14 years	Total proportion of all working children who work only (per cent)	Estimated numbers of all working children who worked only	Total proportion of all working children who both work and attend school (per cent)	Estimated numbers of children who both worked and attended school
Sub-Saharan Africa	(35.0)	30 780 500	(60.8)	18 708 300	(39.2)	12 072 400
Angola	5.8	175 400	86.5	151 800	13.5	23 600
Burkina Faso[2]	69.0	1 764 800	97.8	1 726 000	2.2	38 800
Burundi	39.6	611 100	63.5	387 800	36.5	223 400
Cameroon[2]	17.5	333 700	67.2	224 300	32.8	109 500
Central African Republic	69.5	547 800	69.4	379 900	30.6	167 900
Chad	72.2	1 270 100	59.9	760 600	40.1	509 400
Congo	42.5	314 900	50.8	159 900	49.2	155 000
Côte d'Ivoire	43.5	1 568 800	61.7	967 800	38.3	601 100
Ethiopia	59.8	8 831 900	76.3	6 741 700	23.7	2 090 200
Gambia	27.5	71 000	57.0	40 500	43.0	30 600
Ghana	28.5	1 183 400	36.4	430 300	63.6	753 100
Guinea	51.1	886 300	99.2	879 600	0.8	6 700
Guinea-Bissau	69.9	199 800	76.5	152 900	23.5	46 900
Kenya	6.7	457 500	44.8	205 000	55.2	252 500
Lesotho	33.3	131 700	28.3	37 300	71.7	94 400
Madagascar	27.9	939 800	91.4	858 900	8.6	80 900
Malawi[1]	23.3	726 300	20.1	146 000	79.9	580 300
Mali	27.5	704 600	80.3	565 800	19.7	138 800
Namibia	15.4	63 400	9.5	6 000	90.5	57 400
Rwanda	35.7	693 700	41.3	286 600	58.7	407 000
Sierra Leone	76.1	679 500	68.4	464 700	31.6	214 900
South Africa	27.7	2 202 900	5.1	112 300	94.9	2 090 600
Sudan	20.9	1 358 800	70.2	954 100	29.8	404 700
Swaziland	12.3	29 800	23.2	6 900	76.8	22 800
Togo	74.7	858 700	42.4	364 400	57.6	494 300
Uganda	14.5	804 200	29.3	236 000	70.7	568 300
United Republic of Tanzania	40.4	3 024 200	40.0	1 208 900	60.0	1 815 200
Zambia	14.4	346 400	72.8	252 300	27.2	94 100
Asia		11 887 900		10 071 100		1 816 900
Cambodia	52.3	1 455 800	16.5	240 200	83.5	1 215 600
India	5.8	10 432 100	94.2	9 830 900	5.8	601 300
Latin America and the Caribbean		3 264 500		493 800		2 770 600
Belize[1]	5.6	3 500	18.2	600	81.8	2 800
Brazil[1]	6.8	2 318 400	8.9	206 300	91.1	2 112 000
Dominican Republic	13.8	264 900	12.6	33 400	87.4	231 500
Guatemala	20.1	478 300	38.5	184 400	61.5	293 900
Guyana	32.0	37 500	7.9	3 000	92.1	34 600
Honduras	11.4	153 400	41.9	64 300	58.1	89 100
Trinidad and Tobago	4.3	8 500	21.5	1 800	87.2	6 700
Countries in developed regions		160 100		2 900		157 200
Ukraine[1]	2.4	160 100	1.8	2 900	98.2	157 200
Total (38 countries)	(14.5)	46 093 000	(63.5)	29 276 100	(36.5)	16 817 100

* For some countries, ages are 5 to 14 years, or 10 to 14 years, as indicated.

[1] Children aged 5 to 14 years [2] Children aged 10 to 14 years

The ILO International Programme on the Elimination of Child Labour (IPEC): mandate and objectives

IPEC's aim is the progressive elimination of child labour worldwide by strengthening national capacities to address child labour problems, and creating a worldwide movement to combat it. While the goal of IPEC remains the prevention and elimination of all forms of child labour, an urgent priority for IPEC's action is the eradication of the worst forms of child labour, which are defined in ILO Convention No. 182 as:

- all forms of slavery or practices similar to slavery, such as the sale and trafficking of children;
- debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict;
- the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances;
- the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties;
- work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children

IPEC's work is being achieved through several means: through country-based programmes which promote policy reform, build institutional capacity and put in place concrete measures to end child labour; and through awareness raising and mobilization intended to change social attitudes and promote ratification and effective implementation of the ILO Conventions. These efforts have resulted in hundreds of thousands of children being withdrawn from work and rehabilitated or prevented from entering the workforce. Complementary to this direct action throughout has been substantial in-depth statistical and qualitative research, policy and legal analysis, programme evaluation and child labour monitoring.

IPEC's work on child labour is an important facet of the ILO's Decent Work Agenda because child labour perpetuates the vicious cycle of poverty by preventing children from acquiring the skills and education they need for a better future thereby depriving them of decent work as adults. IPEC's experience shows that to be effective, poverty alleviation programmes must address child labour issues through prevention, withdrawal, and the strengthening of national capacity, especially in the education system.

Action against HIV/AIDS-related child labour fits well into the IPEC Time-Bound Programme approach, which emphasizes the need to address the root causes of child labour by linking action against child labour to the national development effort and emphasizing economic and social policies to combat poverty. This approach is founded on total commitment and active participation of governments, the social partners and other stakeholders. It can also address the combined problem of HIV/AIDS and child labour in policy and programme development, implementation and monitoring through enhanced inter-agency collaboration.

The worst forms of child labour

There is a subset of forms of child labour that is immediately and urgently targeted for elimination (see Figure 4). The worst forms of child labour as defined in ILO Convention No. 182 constitute serious violations of children's rights that require urgent action for abolition. The worst forms of child labour comprise hazardous work, as well as child slavery, child commercial sexual exploitation, trafficking – and the use, procuring or offering of a child for prostitution, pornography or illicit activities.[48]

Despite a serious lack of reliable data on the worst forms of child labour that are referred to in paragraphs (a) to (c) of Article 3 of ILO Convention No. 182,[49] estimates are available from the ILO's International Programme on the Elimination of Child Labour for 2000. According to these estimates, over and above the number of children in hazardous work, there were about 8.4 million children involved in the other worst forms of child labour. Among these children, about 1.2 million were victims of trafficking; 5.7 million were

Figure 4. Working children, child labour and worst forms of child labour

victims of forced and bonded labour; 0.3 million were exploited in armed conflict; 1.8 million were victims of the use, offering or procuring of a child for prostitution, for the production of pornography or for pornographic performances;[50] and 0.6 million were exploited through the use, offering or procuring of a child for illicit activities.

The nature of children's work and the level of HIV risk

All children who work are at some level of risk of HIV, fundamentally because work draws them into the adult world, whereas they belong in the world of children, at school or at play. Furthermore, being outside school robs them of the personal growth and access to information that help them to protect themselves as children and adults, and denies them access to the skills that would enable them to climb out of poverty and protect themselves as adults.

All children who work are at some level of risk of HIV, fundamentally because work draws them into the adult world, whereas they belong in the world of children, at school or at play.

The nature of children's work can also sharply increase the risk of exposure to HIV. Children performing light work, but still attending school have lower risks than children who are considered to be engaged in child labour. Children performing hazardous work are at greater risk than all children exploited in child labour, both directly and indirectly. Direct risk occurs when their work exposes them to beatings and other violence, verbal and sexual abuse, and sexual exploitation; and indirect risk arises when the hazardous work is being performed in conditions of poverty, where knowledge is lacking and the general risk of HIV exposure is high. Children engaged in the worst forms of child labour – other than hazardous work – are at the very greatest direct risk because these forms comprise the most inhuman abuses of children, in trafficking, forced or bonded labour, forced conscription, prostitution, pornography and drug peddling.

The sexual exploitation of children

When children are impoverished by the illness of one or both parents, they may get involved in sexual exploitation even at very young ages as a first or last resort to obtain immediate cash earnings, food and subsistence, or the company and protection of adults who disguise their abuse as a form of assistance, and offer guarantees of support in exchange for sex. Children who are co-opted into sexual exploitation often need not only to support themselves, but also siblings and, occasionally, their own children. Among the numerous hazards these children are exposed to, the exposure to STIs is one of the most damaging and to HIV infection the most life-threatening. But the profound harm caused by the closing of life options to learn skills and become independent adults is incalculable: an ILO rapid assessment of girls in prostitution in Ecuador, Ghana and the Philippines found that at least 70 per cent of the respondents no longer attended school, whereas nearly two-thirds of them expressed the hope they could go back to school.

Early marriage

In parts of the world, parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially. However, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little access to education and poor vocational training.

People may also believe that child marriage will protect them from HIV, so parents seek to marry off their girls to protect their health, and men may seek younger wives as a means to avoid HIV.

Research shows, however, that a majority of persons who are living with HIV/AIDS are married in some settings. Furthermore, the demand for children, and the stigma associated with safer-sex practices are important factors leading to very low condom use by married couples worldwide. Heterosexual married women who report monogamous sexual relationships with their husbands are increasingly becoming a high-risk group for HIV because marriage does not protect them from HIV transmission from their husbands.

When a girl marries, she may be expected to bear a child soon after marriage, and so is denied access to contraception, including condoms, and lacks the power to negotiate safer-sex practices, so marriage puts her at risk of acquiring STIs and HIV.

Sources: Bhattacharya, 2004; UNICEF, 2005a.

The commercial sexual exploitation of children is the sexual abuse of an individual under 18 years for economic or material gain, or against payment in cash or in kind. The sexual exploitation of children is an outright violation of fundamental human rights and amounts to one of the worst forms of child labour. It is reported to be increasing in some countries affected by HIV/AIDS, and is probably arising opportunistically in areas where there are many orphans. A rapid assessment in Zambia in 2002 found that nearly three-quarters of children in prostitution were orphans, half having lost both parents (47 per cent) and one quarter (24 per cent) one parent. Across the world, also, there is a lowering of the ages at which children get ensnared into prostitution. This may also be driven by the HIV epidemic, where the false belief prevails that younger children do not carry HIV or that sex with a young child may prevent HIV – or worse – cure AIDS.

Poverty, lack of schooling, orphanhood and lack of marketable skills create the conditions that favour the sexual exploitation of children. Other conditions that may contribute to this exploitation include cultural factors, such as the low status of girls and women; the weak enforcement of laws; and social unrest, upheaval and conflict that lead to economic hardship, displacement and migration.

Although many countries have successfully reduced the proportion of the population living in poverty, the sex industry remains significant in many countries. Prostitution involving exploitation of children often caters foremost to local and national demand, with tourism demand building on and strengthening the pre-existing situation.[51]

Estimates of the sexual exploitation of children

Sexual exploitation of children is deliberately hidden from view and often linked to organized crime and trafficking in children. Most sexual exploitation of children never comes to the attention of government authorities. In many countries, it is not yet recognized as a problem, or if recognized, is not yet seen as a priority. Its estimation is made more difficult, furthermore, because definitions of child sex work and sexual exploitation vary. Some estimates include street children who sell sex in response to a solicitation; others include only children in brothels or massage parlours, where many are kept in a state indistinguishable from slavery.

Taking account of these limitations, existing reports point to a serious problem. UNICEF estimates that about 1 million children, for the most part girls, enter prostitution each year. Given that boys and girls no longer count as children once they reach 18, it is estimated that 2 million children, the majority girls, are being sexually exploited in the lucrative sex industry at any time. Table 7 summarizes information from 15 countries or geographical locations on the nature and extent of the problem.

In addition to the potentially greater risk of HIV transmission to children,[52] children in prostitution are unlikely to have the skills needed to insist on condom use, or even to have information – or access to information – on risks of infection, or sources of condoms. IPEC rapid assessments of the sexual exploitation of children in Costa Rica, Ecuador, El Salvador, Ghana, Jamaica, Lao People's Democratic Republic, Madagascar, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, the United Republic of Tanzania, and Vietnam between 2001 and 2003 found that even when HIV prevention information was available to most children aged 13 to 17 years who were surveyed, very few of them were able to act on information to protect themselves. A UNAIDS study of young people found that already as many as 30 per cent of children and youth in prostitution aged 13 to 19 years were HIV-positive in selected countries in Asia in 2003.

Street children

The risk of exploitation in commercial sex, unwanted pregnancies, coerced sex and transmission of STIs – as well as the risk of HIV – is greater for children who are orphaned and for street children, who may cope with psychosocial and economic distress in turning to high risk behaviours. Moreover, their risk of HIV is exceptionally high in settings where HIV prevalence is high,

Table 7. Reports of children in prostitution and prevalence of HIV in sex workers, 15 countries or geographical locations, various years

Country (alphabetical order)	Reports of children in prostitution	HIV prevalence in female sex workers (per cent)
Albania	30,000 mostly adolescent Albanian girls working abroad in prostitution (2001)	…
Brazil	500,000 children in prostitution (1994)	2.9 (2001)
Cambodia	In Phnom Penh, 31% of persons in prostitution are children	26.3 (2000)
China	200,000 to 500,000 children (1994)	0.5 (2005)
Dominican Republic	25,000 children in prostitution	3.6 (2004)
India	Between 400,000 and 500,000 children in prostitution	9.4 (2000)
Mexico	About 16,000 children reported in prostitution	…
Moldova	30% of trafficking victims for sexual exploitation are adolescent girls	8.5 (2005)
Lithuania	20 to 50 % of persons in prostitution are minors	1.4 (2000)
Philippines	60,000 to 100,000 children in prostitution (1998)	0.03% in sentinel sites (2003)
Sri Lanka	20,000 to 30,000 children in prostitution	0.0 (2000)
Thailand	About 20% of children in prostitution began at 13 to15 years (2003)	8.5 (2000); 4.3 (2004)
United States	About 325,000 children at risk of sexual exploitation (2000)	
Vietnam	7 to 11% of persons in prostitution are children	10.0 (2000)
West Africa	35,000 children in prostitution	…
Mekong sub-region	30 to 35% of all persons in prostitution are children	…

Sources: Lim, 1998; Chantavanich et al., 2000; ECPAT, 2003; Government of the Philippines, 2003; Save the Children, 2001; UNAIDS, 2006a; UNDP, 2004; and UNICEF, 2001b.

which are precisely the settings where they are most likely to find themselves. The HIV epidemic has lead not only to a rise in the numbers of orphans, but also to a rise in the number of children who end up living on the street.

The number of street children is growing in many cities in Sub-Saharan Africa. In Uganda, it is estimated that over 20,000 children and youth, mostly boys (70 per cent) are living on the street, and about 80 per cent of them have lost parents or guardians as a result of HIV/AIDS. In many cases, orphans brought to urban areas to work as domestic servants have ended up trapped in other forms of exploitation, including child labour and prostitution, or they eventually experience homelessness, delinquency and drug abuse. In a study of children in prostitution in Uganda in 2003, 48 per cent were found to be orphans who had migrated from villages to fend for themselves. Street children are at high risk of HIV not only because they have no care and guidance, but because they lack basic shelter and food, and may resort to drugs, including injecting drug use. Children on the street are exploitable, and most are in child labour, many are victims of sexual exploitation or resort to prostitution or crime to survive. These problems are frequently compounded by harassment and abuse by law enforcement officers and from within the law enforcement system itself, which is not only dehumanizing, but robs the children of any hope of recourse, or of accessing help.

In the long term, the exposure of girls and boys to sexual exploitation must be addressed through access to education and to decent and productive work. Ensuring that children at risk have access to education, life skills training, health services and – eventually – jobs is critical to reduce the risks of HIV infection and provide the necessary information, education and services to help children to protect themselves. Discussions in the UN system [53] are currently reviewing issues related to prostitution in the current context of universal access to prevention, care and treatment, and seeking the means to develop actions that can acknowledge and address HIV/AIDS and prostitution – including children in prostitution – within a comprehensive rights-based framework.

An enormous gap remains, however, between what has been done to date and what remains to be done to protect the rights and address the needs of the 15 million AIDS orphans worldwide, of whom 12 million are living in the poorest and most affected countries. Orphans lag behind non-orphans in school attendance and are much more likely to work and to fall prey to child labour and its associated risks. Moreover, there are millions of other children who are being harmed by HIV/AIDS, because they are caring for sick and dying parents who are still alive But there are few studies of the hardship facing these children at this critical stage, because survival after symptomatic AIDS is so short and so much else needs to be done. Although most heavily-affected countries in Sub-Saharan Africa have a national policy for orphans and children made vulnerable by AIDS, according to UNAIDS, fewer than 1 in 10 children were reached by basic support services in 2005.

As HIV harms children in many different ways, multisectoral policies should be elaborated to tackle their various needs, and programmes should target communities where HIV is making children especially vulnerable.

Chapter 4. The consequences of HIV/AIDS for youth

As a group, youth are at greatest risk with respect to the HIV epidemic for three related reasons.[54] Young men and women are entering their working lives and as a category of workers who may have little training and experience, they are at high risk of unemployment. At the same time, they are starting off their adult sexual lives. Finally, many youth live in poverty. It is estimated that 200 million young people, or 18 per cent of all youth, live on less than US$1 per day, and 515 million on less than US$2 per day.[55] These three factors interact with the result that, according to the most recent data, young people account for half of all new HIV infections.

Young men and women are 2 to 3 times more likely than older adults to be unemployed: youth unemployment is consistently higher than adult unemployment in a wide range of countries. Youth represents only a quarter of the world's working-age population but accounts for nearly half of its unemployed. Young people also work in large numbers in the informal economy, which means that they do not know decent work, are usually underemployed,[56] work under precarious conditions and benefit from little or no social protection and benefits (such as protection from accidents, occupational health risks, or job loss). Along with women and migrant workers, youth experience among the worst conditions in the world of work. It is not unexpected to find that the majority of men and women who have resorted to the sex industry for their livelihood began sex work in their teens or early 20s, and that in many parts of the world the vast majority of sex workers are under 25 years.

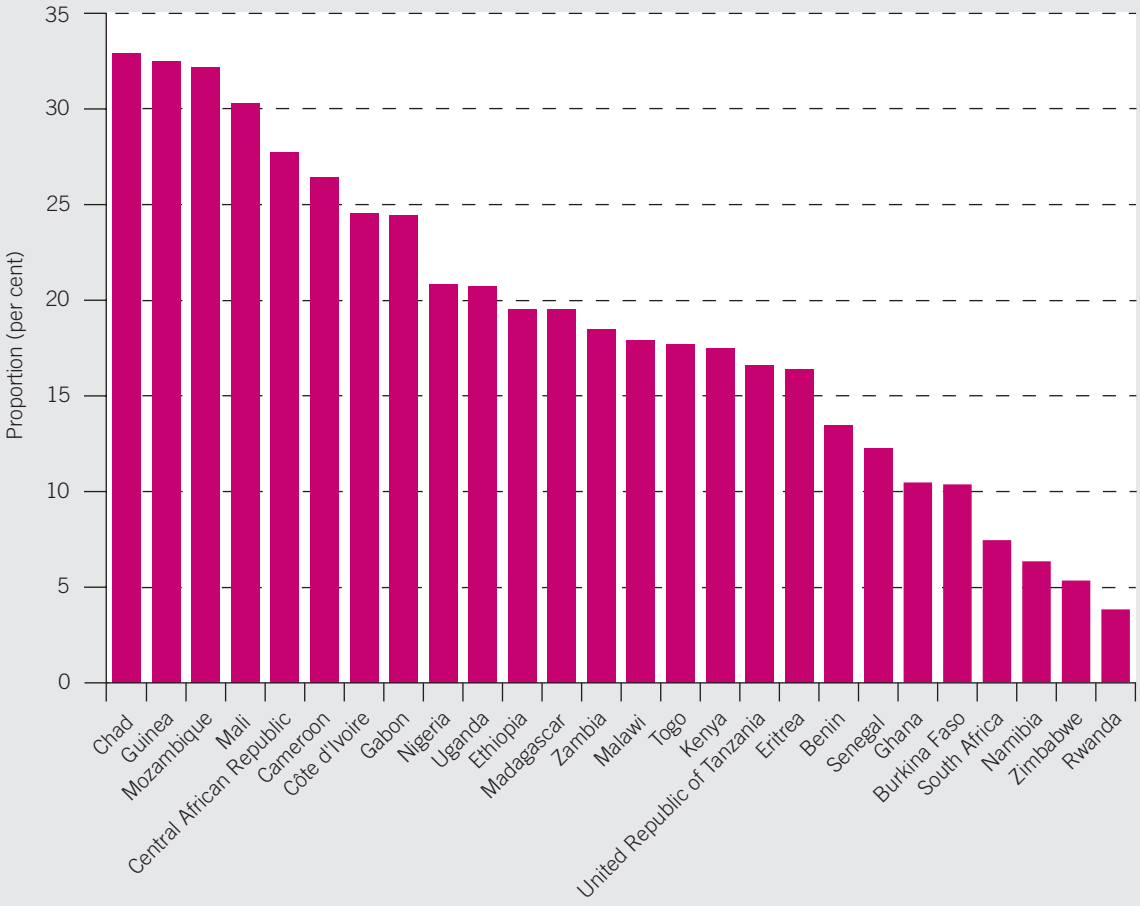
At the same time, an estimated 5,000 to 6,000 young persons acquire HIV each day. The majority of young people in most countries surveyed do not yet use condoms when having sex with a non-regular partner,[57] and detailed enquiry often reveals that most non-users do not feel they are at risk. According to UNICEF, at least 30 per cent of young people in 22 countries surveyed in 2004 had not heard of AIDS and how HIV is transmitted, and as many as 87 per cent of groups of 15 to 19 year olds did not believe themselves at risk. Denial is widespread even with knowledge of AIDS, and many young people who are sexually active and know the modes of transmission of the virus report that they face little or no risk of becoming HIV-positive themselves. Moreover, the majority of young persons who are living with HIV do not know that they carry the virus, especially in resource-poor settings.

Lack of information plays a fundamental role, and attempts to increase awareness and understanding are still well below the 2005 targets set by the Declaration of Commitment on HIV/AIDS of the United Nations General Assembly Special Session on HIV/AIDS in 2001. According to recent reports, countries face difficulties in introducing HIV education into the primary and secondary curricula, actually providing HIV instruction, and reporting on HIV education coverage. All of this is needed to ensure that by the time they are 15 to 24 years old, youth have had access to and have acquired comprehensive HIV-related knowledge. Explanations for this include the fact that unmarried youth may not be acknowledged as sexually active by adults in a number of cultures, and that in some countries, sexual health education is not culturally and/or legally tolerated in schools. Yet studies show that when exposed to appropriate information about sex, young people tend to postpone sexual activity and/or to use condoms.

Outside early marriage or other precociously stable relationships, young people as a group are more likely than other age groups to take risks with respect to sexual behaviour. This is because sexual initiation is frequently unpredictable and unprepared, and early sexual experiences often take place with non-regular and non-cohabiting partners. Also, with access to partners, young persons may have a higher frequency of sex than other age groups, which is an important component factor in disease transmission. Age at sexual debut is another important factor, as an earlier debut can mean a longer exposure to the risk of HIV, and can be associated with a larger number of sexual partners, which is also a risk factor for HIV. Surveys show that age at sexual debut is highly variable, for a number of cultural, economic and social reasons. In Africa, for example, over 30 per cent of young men reported having sex before 15 years in Kenya, as did young women in Chad, Guinea, Mozambique and Mali, whereas under 10 per cent of young women in South Africa, Namibia, Zimbabwe and Rwanda reported they had sex before 15 (see Figure 5 for surveys of young women).

In many cases, the age at which youth – in particular young women – have their first sexual encounter is related to the age at which they marry. In the same surveys, for example, 39, 45 and 50 per cent of young women now aged 20 to 24 years in parts of Mali, Nigeria and Ethiopia report that they had been married before

Figure 5. Proportion of women aged 25 to 29 years whose first sexual encounter occurred by age 15 years, 26 Sub-Saharan African countries, 1992-2002



Source: Demographic and Health Surveys (multiple years).

age 15 years, and 83, 73 and 80 per cent report being married before age 18 years. To the extent that marriage is a major determinant of entry into sexual life, raising the legal minimum age at marriage contributes to lowering the risk of HIV for young women. It is noteworthy in this regard that repeat surveys in Africa are now showing increases in the reported ages at first sex.

Other contributing factors include alcohol and drug use, which lower inhibition and increase the risk of exposure to HIV through sexual and other high risk behaviours. Studies show that individuals are less likely to practise safer sex when experiencing the effects of alcohol and drugs. According to the UN World Youth report, the emergent use of synthetic drugs worldwide is unprecedented, and takes place essentially in recreational settings. The demand for illicit substances by youth in developing countries has increased to levels typically found in industrialized countries.

All these sources of risk are aggravated in the case of orphaned youth who are underage. These young men and women have lost the protection and guidance of one or both parents. At the same time, they are at greater risk of poverty and are more likely to lack access to education and knowledge, to have to resort to prostitution, and to be subjected to sexual predators. For these reasons, the likelihood of exposure to the risk of HIV is common to a number of specific groups of young people: those who are refugees, youth who are drug users, and youth living in households with HIV/AIDS,[58] as well as orphans as a result of AIDS, and youth living on the street.

Moreover, the risks are greater for young women than for young men, as are the consequences. Surveys show that the knowledge level about HIV/AIDS is almost always higher in young men than in young women. Although young men tend to report higher levels of sexual activity than young women, they also report higher levels of condom use.

The outcome is displayed in Main table 4, where it can be seen, that in the particular case of the region with the highest HIV prevalence in young people – Sub-Saharan Africa – the regional prevalence for 2005 was

estimated to be 1.5 per cent in young men, but 3 times that level – 4.3 per cent – in young women. It is notable that the estimated prevalence in young women exceeds 10 percent in 7 countries: Botswana, Lesotho, Mozambique, Namibia, South Africa, Zambia and Zimbabwe, whereas in no country in the region is the HIV prevalence of young men estimated to reach 8 per cent (7.7 per cent in Swaziland). Outside Africa, the second worst-affected region is the Caribbean, where HIV prevalence is estimated to be 0.7 in young men and 1.6 in young women.

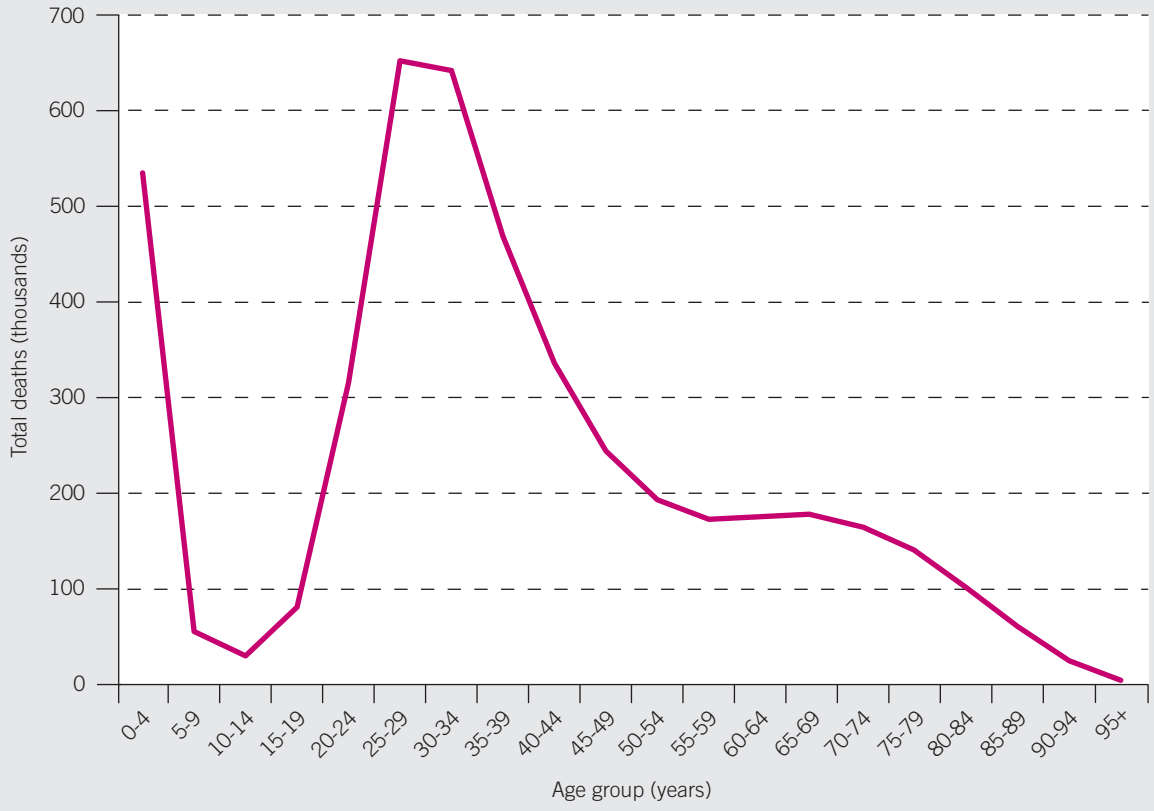
The grave consequence ultimately is the premature death of both men and women as a result of AIDS. In Africa, in particular, the effect of the epidemic on the mortality of young adults is striking. Given that symptomatic AIDS develops within 10 years on average after exposure to HIV and assuming that there is little or no access to ARVs, the death rate of the 15 to 24 year-old generation would peak at around 30 years. Mortality trends confirm that the proportion of all deaths that occurred in adults aged 20 to 29 years and 30 to 39 years in the populations most affected by the epidemic in Sub-Saharan Africa increased over 300 per cent between the late 1980s and the early 21st century. Whereas deaths are typically high in early childhood and in old age in developing countries, in regions heavily affected by AIDS – in this case Southern Africa – deaths have risen to such a high level between 20 and 39 years that the proportion of deaths in young adulthood dwarfs the level of deaths in early childhood and in old age (see Figure 6).

Orphaned youth and youth heads of households

> *The mortality of adults leaves children as orphans, but the death of providers leaves orphans destitute. When parents die, their children are orphans whether they are infants or 17 years old. When suddenly bereft of parental guidance, few youth can care for themselves adequately let alone easily replace parents in caring for younger siblings, even if many 15, 16 and 17 year-olds already work.*
>
> ILO, 2004c

One of the most direct impacts of HIV/AIDS on underage youth is the loss of one or both parents. UNICEF estimates that in 2004, 55 per cent of all orphans were adolescents between 12 and 17 years. Many children directly affected by HIV/AIDS or orphaned as a

Figure 6. Total deaths by five-year age groups in Southern Africa, 2000-2005



Source: United Nations, 2005a.

result of HIV/AIDS in this age range are already supporting their families or begin to do so at the death of their parent(s). In the absence of adequate social protection, and in situations where extended families are facing similar problems or cannot take in young relatives, many young people themselves become heads of households and providers for siblings or a sick parent. Often, young heads of household take on this role in an effort to avert splitting their sibling group.

A study in Rwanda in 2004 revealed that 70 per cent of a sample of youth 15 to 24 years and adolescents 12 to 14 years who headed households had lost both parents, and 80 per cent of them cared for younger siblings.[59] The younger heads faced more difficulties – few still of school age attended school (28 per cent) – but tended to have more support. At the time of the survey, 65 per cent of the heads of households had been in that role for 4 or more years, and 55 per cent reported having gone without food to ensure enough for their siblings.

The general health status of the young people was poor. Half of them reported being currently ill or having a disability. Moreover, they reported feelings of being unworthy, sad, desperate, anxious, angry, or depressed. They felt isolated and marginalized, and over half reported maltreatment in the form of exploitation and theft; 25 per cent had known beatings and physical abuse. One in 10 adolescent girls and young women had been sexually abused or raped, and several youth had consented to unwanted sex to obtain support for their families and themselves. They are more likely to feel depression, anxiety and anger as a result.[60]

The experience of the young women and men differed in important ways. The young women tended to care for a larger number of children in the home, and had less support from neighbours and the community, as well as experiencing more sexual coercion. The young men reported more delinquent behaviour, substance and alcohol use, and were more often exposed to physical abuse and to exploitation for their labour.

Adolescence is a critical stage of transition and the event of orphanhood can lead to depression, hopelessness, risk behaviour and withdrawal. Orphaned adolescents become exposed to many risks when they experiment with sexual initiation, alcohol or tobacco use, and sometimes experience violence and drug use. The consequences of their risk taking behaviours can be grave, including STIs and HIV, as well as unwanted pregnancy.

As orphaned adolescents mature several issues grow in importance, such as prevention of sexual abuse and exploitation, and attainment of life skills, including skills for HIV prevention. Orphaned adolescents require different types of assistance because they have specific developmental needs. The more particular needs of orphaned adolescents include access to secondary education, livelihood and vocational training, sexual and reproductive health education and services, psychosocial and social support for transition to adulthood, and access to adult mentors as role models. Researchers have pointed out that older orphans may struggle with identity loss in ways that are not yet relevant to younger children facing the same experiences.[61] Because of their experience, they may also face stigma and discrimination in attempting to access work or training opportunities.

In this respect, youth require different kinds of assistance from programmes working with orphaned children and such programmes should take into account the specific needs of youth orphaned by HIV/AIDS. In view of the important role that school and/or the workplace play by the time of late adolescence and young adulthood, it is essential that both school and workplace policies and programmes take account of their special circumstances, and that they seek to address not only their schooling and training needs, but also their individual psychosocial needs and the discrimination and stigma that they experience as a group. Finally, orphaned older adolescents and youth require that their needs to protect themselves sexually be openly and fully addressed, both in schools and at the workplace.

Coerced sex is more frequent when young people fend for themselves, and the consequences can include HIV transmission. Sexual coercion applies to forced viewing of pornography and attempted rape as much as to trafficking, prostitution, and sex obtained through intimidation, pressure or force. Money, gifts or other economic incentives transacted for sex are also coercive in the context of poverty.

Access to education and youth employability in the context of HIV/AIDS

The impact of the HIV/AIDS epidemic to date has already been amply observed in its immediate effects on orphaned youth, as well as orphaned children. The long-term impact can only now be discerned and already appears ominous. Youth in HIV/AIDS affected households are now being widely reported to be dropping out of school and starting to work when too young, too unskilled and too inexperienced. With poor education and training, these young people are less likely to have access to decent work and are facing a high lifetime risk of underemployment and unemployment.[62] In this way, HIV/AIDS lessens the likelihood that youth will secure decent jobs, and this lack of access to decent work itself increases their risk of exposure to HIV.

Poverty and HIV/AIDS have a jointly significant impact on education, skills and employability, because when orphaned youth living in households affected by HIV/AIDS work to support themselves, sick relatives and siblings, school attendance becomes much more difficult. The loss of parental guidance and encouragement alone increases the risk of withdrawal from school. A study in Benin found that adolescents whose parents were both alive were 3 times more likely to be still attending school than adolescents who had lost both parents (50 per cent as compared with 17 per cent). As HIV/AIDS impoverishes households, the econ-

omic impact of HIV/AIDS further jeopardizes the chances of many youth to stay in school, not only by making school attendance unaffordable, but by forcing them to find ways to address the household's worsening income situation and care needs. Economic hardship due to poverty and HIV/AIDS linked to poverty deprive them not only of years of schooling, but of education into social and civic life as family responsibilities become incompatible with access to recreation and participation in community activities.

At global level, there are many reasons for school attendance to decline with age as adolescents and youth chose alternative paths at different decision points of their lives, particularly when they reach the age when they can legally work, and employers can legally hire them. In many countries and resource-poor settings, however, youth simply have significantly less access to schools than younger children because of lack of institutional infrastructure,[63] inadequate personal resources, and demands made on them to address the income and care needs of their families and households (see Main tables 3 and 4). Poverty erodes access to education and to the benefits that would accrue, and this happens early on and has a profound and lasting impact. According to UNESCO, even if the current generation of youth is the best-educated to date, 130 million youth were still illiterate in 2000, and, behind them, 115 million children were still not in school in 2001-2002.

> *HIV/AIDS is directly destroying the productive potential of youth themselves and lessening the likelihood of youth to secure decent jobs.*
>
> ILO, 2004a

Without access to the education and training they need, the chances of finding work, especially decent work, are diminished when youth become adults. Young people living in AIDS-affected households often find out only later that decent jobs are unavailable or beyond their reach because of their earlier lack of education and training. In South Africa, for example, nearly two-thirds of unemployed young people do not hold a secondary-level certificate. In Ethiopia, 33 per cent of unemployed youth have only a primary level education, and 45 per cent are illiterate. The same holds for Latin America and the Caribbean region, where the higher the educational level of youth, the lower their relative level of unemployment. They also often encounter discrimination and experience stigmatization, not only because of their direct experience of AIDS, but because of their low status. The intolerant attitude of employers to young people perceived as being HIV-positive or affected by AIDS can lower their chances of employment or determine poorer conditions of employment.

Youth who lose their parents and start to work prematurely not only have less education, but also have fewer professional skills of the type generally passed on by older workers. Furthermore they lose access to essential practical skills that their parents would have transmitted to them in the fullness of time, among them parenting skills: many men and women will not learn from their own parents how to care for their own babies and young children, and their children will not know grandparents.

Working life skills

Worker know-how has an impact on productivity and quality, and is transmissible from older to younger workers. Youth who enter work early are more likely to enter child labour and be at increased risk of exposure to occupational hazards, where they will rarely find mentors. They do not learn skills such as bargaining for decent wages or better working conditions. In some settings, the HIV epidemic has severely depleted the human capital of teachers, school managers and administrators, as well as educational policymakers, as well as having eroded the public revenue base for investment in education. This state of affairs not only undermines schooling, but leaves few role models and mentors in the school system for youth who need to learn life skills. At the same time, youth who leave school find similarly that there are fewer older workers in their communities who can transfer such skills.

Traditional skills

The death of one or both parents reduces the time-honoured transfer of skills and knowledge from parents to children, which may result in an overall loss of essential traditional skills – especially in the informal economy – and practical skills that are essential for survival. The overall impact is to reduce the productive potential of the generation of youth. In farming communities where many adults die, for example, orphaned youth may have not yet fully learned farming techniques for irrigation, soil enhancement, crop rotation or livestock management. As a result, they may shift towards subsistence farming, which implies a reduction in productivity and real incomes. Many others are left in poverty without skills and have to find work of any other type to survive.

Knowledge for HIV prevention

The youth concerned are even less likely to have practical knowledge about HIV prevention, or to have access to such information when they lose their ties to institutional settings (whether educational or in the world of work), and become difficult to reach. Youth who no longer attend school need to be reached through community programmes. According to surveys conducted in 11 countries in Sub-Saharan Africa, HIV-related knowledge levels are highly related to the educational milieu as well as to the level of education reached: levels can be twice as high for youth who received at least primary education, and four times as high for young people who had received a secondary education or more.[64]

The youth employment challenge

Employment prospects for young people vary according to sex, age, ethnicity, educational level and training,

family background, health status and presence of a disability. Youth in resource-poor settings may face especially serious barriers to decent jobs, including their employability deficit, the lack of decent work opportunities, and their (perceived) HIV status, as well as adverse conditions of discrimination, forced labour, work in hazardous occupations, armed conflict, and forced migration.

Globally, it is estimated that there were 85 million unemployed youth aged 15 to 24 years in 2005, and they make up nearly half (44 per cent) of all unemployed persons in the world. In almost all countries, the youth unemployment rate exceeds the adult unemployment rate, yet youth make up only 25 per cent of the working-age population. Beyond this, millions of young people across the world are underemployed.[65]

According to global and regional estimates, youth unemployment appears to have risen globally between 1995 and 2005, from 12.3 to 13.5 per cent of all youth, but with substantial regional variation. Youth unemployment increased in Latin America and the Caribbean from 14.4 to 16.6 per cent, and rose little in South Asia from 9.9 to 10.0 per cent, whereas in Sub-Saharan Africa it persisted at a very high level over the entire period, swelling from an estimated 17.5 per cent to 18.1 per cent.

When assessed at national level, youth unemployment in Sub-Saharan Africa shows some extraordinarily high levels, and these levels are increasing. In South Africa, for example, youth unemployment was estimated at 44 per cent in 2000 (42 per cent for young men and 47 per cent for young women),[66] when youth accounted for a third of all unemployed persons. By 2003, unemployment had risen to 60 per cent (56 per cent for young men and 65 per cent for young women). In neighbouring Botswana, youth unemployment for 15 to 19 year-olds and 20 to 24 year-olds was estimated to reach 49 and 38 per cent respectively in 2001,[67] and young people were estimated to account for 62 per cent of all unemployed persons.[68] Reported national levels of youth unemployment were higher than regional estimates in other countries highly affected by HIV/AIDS. Youth unemployment was estimated at 17 per cent in the Russian Federation, and 20 per cent in Ukraine in 2002.[69] The youth unemployment rate in Brazil was estimated at 19 per cent and in Barbados at 26 per cent in 2003.[70]

Youth labour force growth

Whereas youth are already experiencing high levels of unemployment and poor conditions of work in the informal economy in Sub-Saharan Africa, early entry into the labour market is now a recognized trend in many countries highly affected by the HIV/AIDS epidemic. It was already observed in 2000 that children aged 10 to 14 years made up as much as 30 per cent of the labour force in some settings. This observation coincided with reports on the growing impact of the HIV epidemic on orphans, children and youth living in HIV-affected households, who were leaving school at young ages to enter the labour market earlier, who had few marketable skills, and were driven by the need to support themselves and their families. Youth will need to compete for jobs not only with even younger persons, but with adults, as Sub-Saharan Africa is the only region where adult and youth labour forces are expected to grow at similar rates, with further adverse repercussions for the youth labour market.[71]

According to ILO estimates, the youth labour force (youth who work and who are seeking work) will reach 660 million globally by 2015, up by almost 4 per cent since 2005.[72] The youth labour force will not grow in more developed regions and will decline in China, but in Sub-Saharan Africa, the region most affected by HIV/AIDS, the youth labour force is expected to increase by 25 per cent, from 96 to 121 million, in South-East Asia and the Pacific by 19 per cent, and in South Asia by 9 per cent. Consequently, there will be more first-time job seekers in those regions and decent employment opportunities will need to grow substantially, constituting a tremendous challenge especially in Sub-Saharan Africa and South-East Asia.

Given that the labour markets in Sub-Saharan Africa and South-East Asia will not be able to absorb all new entrants, there will be greater selection by education and experience, which are precisely the assets and skills that young people in poverty, especially orphaned youth and youth affected by HIV/AIDS, are likely to lack. Inadequate skills and mismatched skills reduce employability, which increases the risk of marginalization and social exclusion for under-educated and under-trained youth, while it also undermines enterprise competitiveness.

Yet one of the best solutions to social exclusion and the best forms of prevention against HIV is decent work, and the best way to access decent work is through education with the appropriate training and skills. But formal education and training systems often do not reach marginalized and disadvantaged youth, including youth who have dropped out of school, and who are affected by HIV/AIDS. Out-of-school training is a very important means to help youth qualify for jobs, giving opportunities for education, skills training and microcredit, among other interventions. Importantly, out-of-school structures would also make it possible to convey HIV prevention messages and information for youth who are at high risk, but who are also hard to reach.

For youth who are engaged in hazardous child labour,[73] who have lost their access to school and are too old to return to basic formal education, a sustainable alternative is to enable them to acquire skills in marketable trades and basic vocational skills. On completion of training, in-kind start-up capital can be provided that is accompanied by essential follow-up supervision for a period of time (an example is to provide sewing machines for youth trained in tailoring; see also Table 8 below in the section *Youth in sexual exploitation*).[74]

Various projects address the needs of orphaned adolescents for vocational and livelihood training. For

The youth employment challenge in the context of HIV/AIDS: the work of the ILO

The ILO has sought since 1919 to improve the employment and working conditions of young people and address youth employment challenges through establishing Labour Standards, such as Conventions and Recommendations, and promoting their adoption and implementation by member States. The ILO's Governing Body endorsed an international tripartite meeting *Youth employment: the way forward* in 2004, and identified youth employment as a topic for general discussion at the 93rd session of the International Labour Conference in 2005. The ILO is strengthening its commitment to address the youth employment challenge by working to facilitate, coordinate and provide technical guidance for an integrated programme of work on youth employment linked to decent work and poverty eradication, and to skills development, in close collaboration with the social partners.

In addition, the ILO is the lead organization in the UN Secretary General's Youth Employment Network (YEN), a partnership between the UN, the World Bank and the ILO set up in the framework of the Millennium Declaration. Target 16 of Millennium Development Goal 8 (*Countries to develop a global partnership for development*) emphasizes action for youth employment: "in cooperation with developing countries, develop and implement strategies for decent and productive work for youth". The YEN brings together policymakers and representatives of employers and workers, youth and civil society to identify solutions to the challenge of youth unemployment in poor countries. It is creating space for young people to play an essential role in the design and implementation of National Action Plans. The high-level panel of the YEN identified four global priorities – the *"Four Es"*: Employability, Equal opportunities, Entrepreneurship, and Employment creation. In addition, the ILO's Global Employment Agenda outlines key priorities for youth employment.

The ILO is also contributing to the Joint Activity on Youth Livelihood and HIV/AIDS, for example on linking livelihood opportunities for youth with actions to mitigate the impact of HIV/AIDS. The co-sponsoring agencies of UNAIDS have constituted the Inter-agency task team (IATT) on young people and HIV/AIDS, a mechanism to coordinate and share information on the activities of each agency in the area of HIV and young people.

example, an FAO-supported project in four countries in Sub-Saharan Africa works with Junior Farmer Field and Life Schools to teach agricultural knowledge, business skills, life skills and HIV/AIDS prevention to orphans and vulnerable children who are aged 12 to 18 years.[75]

But skills development for youth who are at high risk is a challenge, and the training offered needs always to be weighed against the skills required on the labour market. Kenya, Nigeria and South Africa have introduced apprenticeship-structured programmes that integrate theoretical learning with working experience. They entail partnerships between governments, service providers and the private sector, and provide a good example of the kind of feedback mechanisms needed to address the skills mismatch in many developing countries (see box). Apprenticeships and school-based vocational education and training are alternatives that present both opportunities and obstacles for disadvantaged youth, and which are gender-sensitive and vary by country. Dedicated alternative training should be developed to address the needs of disadvantaged youth that would include innovative approaches to skills acquisition, employment and income generation.

Access to work and the risk of HIV

In addition to its economic consequences, unemployment carries many social consequences for youth. Young people without access to work who live in poverty or social exclusion are at much higher risk of exposure to HIV than young people who are employed and integrated into the community. HIV/AIDS is itself also a factor, because loss of parental structure, dropping out of school, and the experience of stigma and discrimination disproportionately raise their level of social exclusion, and youth who are socially disadvantaged in these ways are more likely to engage in risky behaviour. But the marginalization and social exclusion

Apprenticeship in Nigeria

Nigeria's National Open Apprenticeship Scheme is an attempt to link education and training at the workplace. The scheme, which is under the Ministry of Labour and Productivity's National Directorate of Employment, provides unemployed youth with vocational education and training in more than 100 occupations. The programme uses production facilities such as workshops and technical instructors of private industry, government institutions and wayside craftspeople, trades people, and other informal economy operators through subcontracting arrangements. Unemployed youth and school-leavers can train for a period of 6 months to 3 years under reputable master craftspeople. To enhance understanding of the chosen trade, theory classes are organized every Saturday to complement the practical training. Since the scheme's inception in 1987 nearly 600,000 unemployed youth have received training, and 400,000 of them have started their own micro-enterprises.

Source: Kanyenze et al., 2000.

caused by unemployment can already be damaging. A survey in South Africa, for example, revealed that 39 per cent of unemployed youth were so highly discouraged by their unsuccessful job search that they gave up actively searching and effectively left the labour market.

To survive, youth living in poverty are forced by circumstances to find income through other alternatives, and the first such alternative is work in the informal economy, which is where a majority of youth are found at present. In Sub-Saharan Africa and in Latin America and the Caribbean as well as South Asia, almost all newly created jobs for young labour market entrants are in the informal economy, which has been a primary generator of jobs for youth who would otherwise be unemployed. Their work conditions, however, are often precarious, and the work is irregular, personally unproductive and poorly rewarded. Most youth who are in the informal economy work long hours for low incomes, lack social protection, job security and representation, and have little or no access to enforcement of even the most fundamental rights.

In order to survive, young people may end up in work that is dangerous, demeaning or dirty, that is marginal, and that is often illegal, including prostitution, criminality, drug use and trade in illicit activities. The ILO's rapid assessments of the situation of youth involved in hazardous and exploitative work find that many young people frequently work long hours in adverse conditions that include health and safety risks; physical, sexual and verbal violence; and exposure to the risk of HIV in prostitution, sexual violence or drug use.

Lack of access to decent work also increases the probability of getting involved in life-style behaviours such as unprotected sex, drug use, including injecting drug use, and alcohol abuse that carry a high associated or direct risk of HIV. With poor education, socially disadvantaged youth are less likely to have knowledge of HIV and methods of prevention. They may live in substandard housing or end up living on the street. Taking persistent behavioural risks and lacking information, education and access to services places them at much higher risk of exposure to HIV than regularly employed young people. Disconnection from school, failure to access decent work, being locked into dehumanizing or mind-numbing work, the despair of poverty, the risk-taking of youthfulness, and being beyond the reach of social services each carry an associated risk of engaging in behaviours that increase exposure to HIV. When several or all of these conditions are present, youth become exposed to a very high risk of HIV, directly from the behaviours themselves, or from the risk of being engaged in sexual exploitation, violence and abuse.

Poverty, sexual behaviour and HIV

Research has found that young people living in poverty are more likely to begin sexual activity at a younger age: for example, adolescents living in poverty report higher levels of sexual activity than adolescents who report that they see their future economic prospects as bright. A 2003 study of orphans aged 13 to 19 years in Rwanda and Zambia suggested that orphaned adolescents were more likely to have had an earlier sexual initiation, and showed that orphanhood in adolescence was more likely to lead to early sexual debut than orphanhood in childhood. High-risk behaviour of older orphans is not restricted to developing country settings: research in the United States has also shown that orphans as a result of AIDS are more likely engage in risk-taking behaviours than non-orphans.

Yet the reported rates of condom use by adolescents and youth at large are still low: of 19 countries with a survey conducted between 2001 and 2005, condom use with a non-regular partner by young women was below 20 per cent in 4 countries, and under 40 per cent in 13 countries. Young women's condom use exceeded 40 per cent in 6 countries, and 50 per cent in only 3 countries.[76] Furthermore, findings with respect to adolescent birth rates serve also as clear indicators of unprotected sex and of the likelihood of exposure to STIs and HIV.

Young people who are heads of households, orphaned, or living in poverty facing homelessness and without access to work also have less access to information and are among the populations of youth who use condoms least. A study of orphaned youth who were heads of households in Rwanda in 2004 found that many of the sexually active youth did not use condoms and did not consider themselves at risk of HIV.[77] Only 55 per cent of the sexually active young men and 60 per cent of the sexually active young women reported themselves at risk of HIV infection. Consequently, only 8 per cent of the sexually experienced young people reported using a condom at their first sexual encounter, and only 13 per cent reported using a condom at their most recent sexual encounter. These rates are far below the condom use rate of the general population of youth in Rwanda: a national survey of youth in the same year (2004) found a condom use rate of nearly 30 per cent in young women, and over 40 per cent in young men. Consequently, 38 per cent of the young women in this group of disadvantaged youth had been pregnant, confirming a very high level of unprotected sexual activity.

Sexual activity in young women is not limited to partners of the same age. A study of cross-generational sex involving teenagers in schools in Kenya revealed that 21 per cent of young women and 48 per cent of young men aged 15 years on average in the final year of primary school (Grade 8) reported having had sex.[78] Around 6.4 per cent of the young women became pregnant before the end of the year, and 88 per cent of the pregnancies were unwanted. The young women were complacent about their "sugar daddies" who were most often men in their late 20s, and reported a gross underestimate of HIV prevalence of adult men. A campaign to provide young women with the information that HIV prevalence was much higher among adult men and their partners than among young men led to a 61 per cent decrease in the incidence of pregnancies

with adult partners among the young women in the intervention group, indicating a large reduction in the incidence of unprotected cross-generational sex.

The results of the study in Kenya confirmed that income was an important factor in cross-generational sex for young women, but that the behavioural choices of youth are responsive to information on risks. In conclusion, policies regarding HIV/AIDS and youth should not only focus on the elimination of risks but should also address risk reduction strategies. This is especially relevant to the development of behaviour change tools for disadvantaged youth, who are exposed to high risks.

The high risk of HIV to which disadvantaged youth are exposed calls for tailored responses from the world of work. One approach to reduce HIV transmission in disadvantaged youth has been to promote alternative productive employment opportunities. Projects designed for youth living on the streets who are at risk have found that developing regular, gainful employment helps to make information sharing on HIV/AIDS, nutrition, and other health areas more effective.[79] In one such project in Zambia, the Zambia Red Cross Society, the YWCA Council of Zambia, and Street Kids International (SKI) created the Youth Skills Enterprise Initiative (YSEI). The programme targets boys and girls from 14 years who have minimal education, substandard living conditions, and little or no previous working experience. The project found that the youth acted on the information they were given about HIV/AIDS, nutrition, and hygiene to take care of themselves only once they had safely earned a profit. Accordingly, the project sought to provide the children and youth living on the streets in Lusaka with an opportunity to increase their daily income by beginning small businesses while learning useful business and life skills, getting skills training, and having access to credit, loans, and ongoing guidance.

Youth in sexual exploitation

One consequence of being disadvantaged and having no access to decent work is that youth resort to sex for survival. In all regions of the world, unemployment and poverty are reported as main reasons why youth have entered prostitution. In the case of youth orphaned as a result of AIDS, restricted access to opportunities for education and training in the years when they provided care to sick parents and then supported their families, and lack of employment opportunities and gender inequality in the economic, social and cultural spheres all increase the likelihood that they will resort to sex work. The risk of HIV is heightened in the context of the epidemic, especially in settings where large proportions of adults – and consequently of sex workers' clients – are HIV-positive. Furthermore, there is increasing demand for sex workers from international tourism (which is itself increasing) in many countries affected by the HIV epidemic, including Cameroon, Kenya, Madagascar, Cambodia, China, Thailand, the Dominican Republic and Jamaica.

Most women and men in sex work report beginning at a very young age. Young sex workers are less likely to have the means to protect themselves, are more vulnerable to sexual violence and exploitation, and have limited access to health services. It is estimated that 80 per cent of sex workers from the Eastern European and Central Asian regions are under 25 years, and sex workers who inject drugs may be even younger than those who do not.[80] The proportion of women under 25 years who work in brothels and other high-risk environments in certain South-East Asian countries ranges from 41 per cent in Indonesia to 76 per cent in the Lao People's Democratic Republic.[81] A survey conducted in Papua New Guinea found that children subject to sexual exploitation were getting increasingly younger (see box).

Sexual exploitation of children and adolescents in Papua New Guinea

A survey conducted on sexual exploitation of children and adolescents in Papua New Guinea by PACE PNG with the support of UNICEF found that:

- Youth below 18 years expose their bodies in nightclubs to lure clients to pay for sex.
- Over 1.3 million underage youth are at risk of sexual exploitation and abuse.
- 50 per cent of victims reporting sexual abuse to police are below 15 years.
- Unemployed, poor parents with no social protection are selling daughters to brokers.
- Many youth were forced into prostitution to support their families or pay school fees.
- By 2005, an estimated 11,000 children were HIV-positive; the figure is expected to double to 22,000 by 2010.
- The number of children orphaned by AIDS was 9,400 in 2005; the figure is expected to grow to 77,000 by 2010.
- 138,108 children lived in HIV-affected families in 2005; this figure is predicted to reach 270,000 by 2009, doubling in 4 years.
- At current trends, the number of children at risk of HIV is estimated at 620,585.

Source: adapted from The National, 2006.

Projects to reintegrate adolescents who are exposed to high risks of HIV due to sexual exploitation can play a very important role. UYDEL (Uganda Youth Development Link) is working in cooperation with the ILO in Uganda on the elimination of the sexual exploitation of children through education and training.[82] UYDEL's work targets sexually-exploited children and youth who are aged between 10 and 18 years from the slums, schools and streets of Kawempe Division in Uganda. UYDEL found in 1999 that about 500 children in the 21 parishes of Kawempe were subjected to sexual

exploitation. The majority were girls who had dropped out of school because of school fees. Most had lost one or both parents, in all probability due to AIDS. UYDEL successfully withdrew 350 children from prostitution and other forms of sexual abuse, and provided them with support in the form of medical treatment, psychosocial counselling, and placement with local artisans for vocational skills training. UYDEL also succeeded in returning 161 children to school.

Table 8 below shows the types of vocational training chosen by the children and youth. Upon satisfactory completion of the training, the graduates were given a toolkit to enable them to set up their own businesses. Follow-up visits were also conducted. UYDEL also provided resettlement packages to children who wished to return to their families and original home areas.

Table 8. Beneficiaries of vocational skills training, Kawempe Division, Uganda (1999-2004)

Type of vocational skills	Boys and young men	Girls and young women	Total number of children and youth
Tailoring	4	164	168
Hairdressing	1	132	133
Welding and metalwork	17	0	17
Carpentry	5	0	5
Motor vehicle mechanic	46	2	48
Brick/concrete laying	1	0	1
Electronics	1	0	1
Catering	0	2	2
Secretarial	0	3	3
Driving/motor vehicle washing	1	0	1
Music, dance and drama	1	0	1
Income-generating activities/ start-up capital	3	18	21
Total	80	321	401

Source: ILO/IPEC, 2004c

Many more initiatives of this type will be required globally to foster alternative employment opportunities for young sex workers and for young people who are trapped in exploitative and potentially dangerous relationships, or locked into other harmful forms of work.

UNAIDS has documented a number of good practices with respect to HIV/AIDS awareness-raising and prevention programmes which include programmes aimed at children and youth involved in commercial sexual exploitation. Sadly, despite the many international and national public information campaigns seeking to raise awareness of how to protect oneself from exposure to HIV, the message is not reaching or empowering those who most need it. The fear of becoming HIV-positive is not the primary concern for many young victims of sexual abuse and exploitation. They may have been trafficked from brothel to brothel, suffering brutal violence on a regular basis, or they may have entered prostitution to avoid starvation. After enduring years of abuse and humiliation, they might not view their own life as having much worth, nor perceive that they have any alternatives.

The fear of becoming HIV-positive is not the primary concern for many young victims of sexual abuse and exploitation. They may have been trafficked from brothel to brothel, suffering brutal violence on a regular basis, or they may have entered prostitution to avoid starvation. After enduring years of abuse and humiliation, they might not view their own life as having much worth, nor perceive that they have any alternatives.

Clearly, measures taken to address the transmission of HIV/AIDS in young people cannot be implemented in isolation from measures to combat, or limit the effects of the sexual exploitation of children and youth. Such measures are addressed in greater detail in Chapter 5.

Child labour and youth unemployment

The interrelations between child labour and youth unemployment have received insufficient attention, but already their links can be clearly discerned, in particular the impact of child labour on later youth unemployment. It is a central concern of the ILO's International Programme for the Elimination of Child Labour (IPEC), whose recent publication *Action against child labour 2004-2005: Progress and future priorities* is a major new reference in the field (ILO/IPEC, 2006a).

Many social, economic and cultural factors affect both the incidence of child labour and the range of youth employment problems, and both are also affected by the HIV/AIDS epidemic, but within the wider context some empirical links are clear. For example, concurrent work appears in the long run to be more damaging to school attainment in early childhood than in adolescence, because the earlier school drop-out occurs, the more the young person's learning is disturbed.[83] Poor education due to patchy or foreshortened schooling limits a child's acquisition of skills to compete later in the labour market, leads to poorer earnings, and is costly for productivity. The preliminary findings of a study using data on adult earnings in Brazil confirmed that early entry into the workforce was directly associated with fewer years of education.[84] Child labour was also found to reduce lifetime earnings by 13 to 20 per cent, and to raise the probability of being poor later in life by 13 to 31 per cent. The foregone earnings and the deficit in skill accumulation make it much more difficult to escape poverty as an adult.

In principle, the removal of children from child labour would require fostering alternative means to encourage the creation of jobs, increase labour productivity and higher wages for young people, as well as the provision of alternative assistance to the current

generation of children, enabling them to strengthen their work skills in the long run.[85] In some cases, however, unemployed youth cannot replace child labour, as in the case of farming help in one's own household. In other cases, however, work done by child labourers outside the home could, in principle, be performed by youth (and adults) instead. The potential to re-orient the demand for labour away from children and towards youth is a compelling priority that cries for attention and deserves thorough examination.

Other links between child labour and youth employment problems derive from the engagement of youth aged 15 to 17 years in the worst forms of child labour.[86] According to ILO Conventions, youth aged 15 to 17 years are free to work as long as they are not engaged in the worst forms of child labour. The ILO estimates that 52 million working children aged 15 to 17 years worldwide in 2004 were engaged in illegal hazardous forms of child labour, without taking into account children and youth involved in slavery, prostitution, forced labour, trafficking, illicit activities and the other remaining "unconditional worst forms of child labour".[87]

Initiatives to eliminate the worst forms of child labour for these youth, for example by removing hazards from the working environment, would reduce child labour while increasing youth employment. The ILO's IPEC Programme has been working in a number of countries to withdraw youth from child labour and to equip them with education and skills to improve their employability, and to have them enter the labour market at the appropriate age. In Bangladesh, Cambodia, Kenya, the Philippines, Senegal and Turkey for example, the ILO has withdrawn children from child labour and sent them to learn skills with local artisans or existing vocational training programmes. ILO's project in Turkey aims to withdraw children aged 15 to 18 years from hazardous work in the metal, furniture, automobile repair, and textile and leather sectors. The project also aims to enrol those children in existing vocational training programmes and to allow them to start legal employment with wages set by the Government and to benefit from social security coverage.

Studies of the impact of child labour on youth unemployment are crucial for the elaboration of long-term strategies for the elimination of child labour and the preparation for entry into the labour market of youth at the appropriate age, as well as for the elaboration of national policies to reduce youth unemployment. The IPEC project, Child Labour and Youth Employment Linkages, launched with support from the Swedish International Development Cooperation Agency (SIDA), focuses on implementing actions founded on the linkages between child labour and youth employment. It seeks to achieve this through the integration of child labour concerns into youth employment national action plans and similar policy frameworks, efforts to address hazardous work of adolescents, and career counselling for working children. The project is planned in Brazil, Indonesia and the United Republic of Tanzania, and may be extended to other countries.

Young people in the workplace and HIV/AIDS

Limitations on youth employment arise from a combination of factors including gender, but young men and women who are themselves HIV-positive, or who live in households coping with HIV/AIDS face outright stigma and discrimination in their search for work, and in the workplaces that hire them. All obstacles to access to work are exacerbated by negative perceptions regarding HIV status. Young women and men who are rumoured to be HIV-positive or come from HIV-affected households, for example, usually have less access to credit to start up their own business, as the perception of HIV risk compounds the drawback of youthfulness. Moreover, young men and women are less likely to have recourse to – or be able to take – remedial action when their rights have been violated in the workplace, because, with lower chances of obtaining work, they are most often in precarious employment. Furthermore, if they are HIV-positive and do not have access to ARVs when they need them, they will ultimately become unable to work. Much more information is needed about HIV-related discrimination towards young people and their access to work opportunities, information on their rights, and access to services, including comprehensive HIV/AIDS programmes.

Several factors place young workers at particular risk of HIV, including the lack of opportunities for decent work, discrimination, powerlessness, lack of representation, and poor social protection. The lack of opportunities for decent work can compel young women and men to work under precarious conditions to subsist, in particular where there is little or no social security for the unemployed. They are at risk of HIV when compelled to work in conditions that directly expose them to that risk, as in sex work, or when their income from work is still insufficient to survive, and they resort to sex work to make ends meet. The lack of decent work opportunities also worsens the social and economic impact of the epidemic in the environment where they live.

Young men and women are often afforded less protection than older workers and they have limited ability to enforce their rights. For example, they often have little or no legal standing to make or enforce employment contracts based on age or sex. Moreover, employment and equal opportunity laws frequently do not take young workers into account. Overall, youth are more likely to be exposed to precarious employment, where they are exposed to sexual harassment and other behaviours that also put them at increased risk of HIV. Young people encounter specific risks in the world of work, and in some cases their rights require specific protection: this is the case in particular for young migrant workers and youth who are heads of households and whose livelihoods are in precarious jobs.

With globalization, the patterns of employment distribution and conditions of work are changing. Some sectors and geographical areas are employing more young people, such as in information, communication and technology services, or in Export Processing Zones

(EPZs). They often work under precarious conditions and lack income security, access to collective bargaining or opportunities to have a representative voice in social dialogue. Young workers are the most likely not to be organized, either because they are predominantly in the informal economy, or working in EPZs where there is a lack of unionization in any case.[88]

Young workers who do not have access to representation from unions and other workers' associations lack the ability to influence decision-making and to protect their rights. They lack access to essential information and a basic understanding of what rights they have. With respect to the HIV epidemic, even if HIV/AIDS policies are developed, young people are rarely consulted and, as a result, interventions are not sufficiently tailored to their needs. Research is required into the design and delivery of effective HIV prevention strategies to reach young workers. This is key because they are ultimately the most important group to reach and address in the global efforts to control the HIV epidemic, and targeted interventions that respond to the needs of young workers will make a difference in reducing exposure to HIV/AIDS globally. In this regard, rights-based interventions that address the specific issues facing young workers have a critical role in preventing the spread of the epidemic and mitigating its broader damaging impact on young people's development.

Youth and the *ILO code of practice on HIV/AIDS and the world of work*

HIV prevention for youth is a fundamental means to mitigate the impact of HIV/AIDS on human capital at country level. *The ILO code of practice on HIV/AIDS and the world of work* provides a set of key principles on HIV/AIDS that applies equally to young people (ILO, 2001). The *code* is aimed at preventing the transmission of HIV and mitigating the impact of AIDS, and provides guidelines for the formulation and implementation of appropriate workplace policy, prevention and care programmes, and for establishing strategies to address workers in the informal economy. The principles and guidelines can be used to mainstream the needs of young workers in national HIV/AIDS policies and programmes, to strengthen and complement existing strategies, and as the basis for targeted interventions.

The ILO is currently helping to adapt the *code* to the conditions of young workers. Building on an earlier initiative, the ILO is collaborating with the Global Unions AIDS Programme to develop a 'tool box' on HIV/AIDS for young workers.

Youth and international goals to achieve sustainable development

> *Policies and programmes that aim to prevent cycles of disadvantage from being repeated across generations are critical in achieving social inclusion and decent work for youth.*
>
> ILO, 2005c

HIV prevention is incorporated in the Millennium Development Goals, and the development and implementation of strategies for decent and productive work for youth comprise one of the MDGs' 18 targets.[89] Furthermore, a comprehensive rights-based approach to addressing HIV/AIDS among youth is supported by several international human rights instruments including the ILO Declaration on Fundamental Principles and Rights at work and other ILO Conventions and Recommendations (see Chapter 5 below).

> *Ideally, comprehensive education for youth would be coupled with effective prevention services for young people that would be "widely accessible, evidence-based, grounded in human rights, age-specific and gender-responsive, and should help build life skills to enable young people to reduce their vulnerability".*
>
> UNAIDS, 2006b

Universal access to ARVs and treatment for young people is an essential component of comprehensive HIV/AIDS programmes, and should be a strong justification for interventions in the workplace and in communities. A comprehensive HIV education and information programme should ensure that young people have sustainable livelihood skills to protect themselves from infection. In the context of Universal Access initiatives, a rights-based approach needs to be taken to ensure the involvement of young people in the planning, launch and monitoring processes of HIV/AIDS programmes. The overarching goal to protect youth and safeguard future generations of human capital should provide the basis to leverage the world of work more effectively in striving to increase access to prevention, care and treatment for HIV/AIDS.

The ILO's social partners are engaging in collaborative initiatives that identify the need to address the issue of HIV/AIDS in young people. In a statement of joint commitment issued on 12 May 2003, the International Organisation of Employers (IOE) and the International Confederation of Free Trade Unions (ICFTU) stated that they "jointly recognize the direct impact of the HIV/AIDS pandemic on the world of work" and called on their "affiliates and their member enterprises and trade unions ... to give the issue the highest priority". They stipulated furthermore that their "work in this area will be built around the *ILO Code of Practice on HIV/AIDS and the World of Work*", and that "[o]ne strategy for implementing [their] efforts is to target groups that are at high risk of contracting the virus", recognizing that "[s]uch target groups include young people between the ages of 15 and 24, who represent one-sixth of the world's population, yet represent half of all HIV infections". They furthermore

acknowledge that "young women are five times more likely to contract HIV/AIDS than young men" and that "[d]ue to the devastating economic effects of the disease, people are forced to adopt survival strategies, which contribute to this vicious cycle". As part of their joint commitment, the ICFTU and the IOE are exploring opportunities to identify and develop joint action pro-grammes in partnership with their national members and building on the efforts and initiatives taken to date at the workplace. At the international level, they seek to increase both the awareness of the problem as an issue for the entire world of work and the resources available to control it.

Heads of State and Governments recently underscored the problem of youth's access to decent work during the 2005 UN World Summit and committed themselves to ensure full and productive employment and decent work for all (see box).

Heads of State and Government endorse decent work in 2005 World Summit Outcome

"We strongly support fair globalization and resolve to make the goals of full and productive employment and decent work for all, including for women and young people, a central objective of our relevant national and international policies as well as our national development strategies, including poverty reduction strategies, as part of our efforts to achieve the Millennium Development Goals. These measures should also encompass the elimination of the worst forms of child labour, as defined in International Labour Organization Convention No. 182, and forced labour. We also resolve to ensure full respect for the fundamental principles and rights at work."

Source: United Nations, 2005b: §47.

It is clear that decent work for men and women everywhere is an overarching and fundamental goal in itself. There are additional benefits to be reaped – both for employment and for the global effort to control HIV – by giving special attention to the epidemic in the elaboration of employment policies and strategies. Notably, the practical action envisaged would gain from policymakers acknowledging the adverse effects that HIV/AIDS is having on economic growth and the public and private investment necessary to create jobs, which in turn affect the ability of young people to find decent work. These factors were recognized in the ILO Resolution concerning youth employment adopted at the 93rd International Labour Conference in June 2005.[90] The Resolution also stated that particular groups of young people face specific hardships in finding decent work, due to discrimination and social exclusion, including those affected by HIV/AIDS. Accordingly, the resolution called for special attention to be given to "the specific needs of young people affected by HIV/AIDS", as well as underscoring policies and programmes aimed at the elimination of child labour.

Youth and access to sexual and reproductive health information

To ensure access to the necessary information for youth to protect themselves, policymakers must seek to promote basic education along with life-skills and traditional training. A comprehensive education programme should educate youth about sexually transmitted diseases and how to prevent them, as was recently acknowledged in the *Global Strategy for the prevention and control of sexually transmitted infections* adopted at the 2006 World Health Assembly. The Global Strategy recognizes that age-appropriate interventions are those that respond to people's rights and health and development needs, and provide access to sexual and reproductive health information, life-skills, education and care, and, in the case of young people, in a manner consistent with their evolving capacities. It urged WHO Member States to develop and adopt plans and actions that draw on the Strategy as appropriate to national circumstances and to monitor implementation of those national plans.

Source: WHO, 2006b.

Chapter 5. The legal and policy framework for children and youth in the world of work

The legal and policy framework to protect children from exposure to inappropriate and exploitative conditions in the world of work is founded on three premises:

- Child labour is a violation of fundamental human rights.
- Child labour is very damaging to children themselves. Children need to be in school and to have access to learning and training that can prepare them for adult life. Child labour demonstrably hinders children's development, and is associated with a high probability of lifelong physical or psychological damage
- Child labour damages societies and economies in the long run because it is a constraint on the expansion of human capital which is essential to economic growth and social development. Moreover, the strong link between child labour and poverty keeps generations of households in poverty, as children kept out of school have limited prospects for upward social mobility.

Accordingly the current framework to protect children's rights is comprised of legal instruments that regulate their lawful entry into the world of work, their access to education, and their fundamental rights.

Lawful entry of children into the world of work, and protection of children from labour

The creation of the ILO in 1919 was based on the belief of its founders that "the failure of any nation to adopt humane conditions of labour is an obstacle in the way of nations which desire to improve conditions in their own countries" (Preamble to the ILO's Constitution). Standard-setting and implementation in matters of international labour law remain the principal means of action of the ILO, and the ILO standards on child labour are primary international legal tools for fighting its occurrence.

The Constitution of the ILO originated in the Treaty of Versailles, concluded in 1919 (Part XIII). Section II of Part XIII of the Treaty (General Principles) stipulated in the sixth paragraph of Article 427 that *"The abolition of child labour and the imposition of such limitations on the labour of young persons as shall permit the continuation of their education and assure their proper physical development"* was a principle of "special and urgent importance". The fundamental principles on which the ILO was based were reaffirmed in the Philadelphia Declaration of 1944, and even though amended in 1946, this provision (which became Article 41 of the ILO Constitution) still adequately defines the ILO's mandate eighty-seven years after its adoption.

Two key issues regulate work where children are concerned – their age and the nature of their work. The applicable Conventions of the ILO were landmarks when propounded and remain the standards of reference in this very critical area of fundamental rights at work.

Minimum age for admission to work or employment

The ILO introduced both the first international regulation of minimum age for admission to employment and the first regulation to protect young workers, by adopting a Convention providing for a minimum working age in industry and a Convention to protect youth from night work at the first session of the International Labour Conference in 1919.[91] Conventions setting the minimum age for work at sea, in agriculture and in other sectors quickly followed, and over a period spanning more than half a century, the ILO adopted 11 Conventions on minimum age, the most recent in 1973.[92] Throughout the organization's existence, ILO action has been based on establishing a minimum age for admission to employment as a yardstick for defining and regulating child labour.

The Convention adopted in 1973 sets forth comprehensive provisions with respect to minimum working ages that are a consolidation as well as revision of the standards successively established by the earlier ILO instruments, and that apply to all sectors of economic activity, whether or not the children are remunerated.[93] The Convention sets overarching objectives: the effective abolition of child labour and the gradual raising of the minimum age for admission to employment. To date, this core Convention has been ratified by 146 member States.[94]

The Convention provides for three different minimum ages depending on the type of employment or work performed. The ratifying member State must

establish a *general minimum age,* and a higher minimum age for admission to *hazardous work* that is likely to jeopardize the health, safety or morals of children. Under certain conditions, children may be admitted to *light work* at a lower age than the general minimum age (see box).

The Minimum Age Convention (No. 138), 1973

The Convention sets the *general minimum age* for admission to employment or work at 15 years (13 years for *light work*), and the minimum age for *hazardous work* at 18 years (16 years under certain strict conditions). It provides for the possibility of initially setting the general minimum age at 14 years (12 years for *light work*) where the economy and educational facilities are insufficiently developed.[95]

The Convention also sets forth a few provisions on the conditions of work of children. In the Recommendation supplementing the Convention,[96] aspects of conditions of employment and work which require the special attention of the competent authority are listed, including remuneration and its protection; limitation of daily hours of work to allow education, rest and leisure; granting of annual leave with pay; coverage by social security schemes; and maintenance of satisfactory standards of safety and health.

Flexibility clauses. In order to enable its ratification and application in different national circumstances, the Convention allows the initial specification of a general minimum age of 14 years, initial limitation of the scope of the Convention, or the temporary exclusion of limited categories of employment or work. The target is to set a realistic minimum age in relation to the normal age of completing compulsory education. This approach reminds us that the aim of setting minimum age standards is the elimination of child labour, which conforms fully to the aims of the Constitution of the ILO adopted in 1919. These provisions show a remarkable consistency in the ILO's approach over more than 80 years and are also evidence that the standards allow for flexibility.

Prohibition and elimination of the worst forms of child labour

Whereas it is acknowledged that the total elimination of child labour in most developing countries must be a long-term goal, there is international consensus that certain forms of child labour are so harmful to the children's welfare that they are totally unacceptable and can no longer be tolerated.[98]

Eliminating the worst forms of child labour is first a matter of saving lives, and of combating some particularly odious forms of organized crime. Indeed, these include the trafficking and prostitution of children which exposes them to the risk of HIV and other sexually transmitted infections, and using them for drug trafficking and other criminal activities. It is also a matter of building a nation's future and a matter of international concern. Indeed, it is crucial to enable children to enjoy a decent childhood with access to education and training to prepare them for decent work during their adult life. The employment of children in conditions that are harmful to their dignity, their morality, health and education seriously undermines the economic viability and cohesion of society and compromises its long-term development prospects. There is now a longstanding global consensus that the manner in which children are treated can no longer be addressed as the purview of the family or household alone.

Resting on the foundation laid by the Convention of 1973 regarding minimum age, which guides national and international action for the eventual total abolition of child labour, a Convention was unanimously adopted by the International Labour Conference in 1999. The Convention (No. 182) addressed the worst forms of child labour on the basis that certain forms of child labour cannot be tolerated and therefore cannot be merely progressively eliminated.[99] Whereas the effective elimination of all forms of child labour remains the

The Committee of Experts on the Application of Conventions and Recommendations (CEACR) and HIV/AIDS

In its work reviewing the implementation of Conventions by States members, the CEACR draws attention to the substantive links between access to free education, child labour and HIV/AIDS. For example, in a Direct Request to the Government of a country affected by the HIV epidemic, under Convention 182 in 2005, the CEACR noted that education was neither free, nor compulsory. It further noted that, according to their National report presented at a session of the International Conference on Education, the school enrolment rate was about 85 per cent in the early 1990s, and in the 2000s, the rate fell to 67 per cent because of HIV/AIDS and poverty. They also reported there were a large number of dropouts, and only a fraction of pupils reached a higher level of education. Considering that education contributes to the elimination of the worst forms of child labour, the Committee expressed the hope that the Government would increase its efforts to provide free and compulsory education, ensure that children attend school regularly, and reduce school dropout rates. Also, considering the orphan population due to HIV/AIDS, and that the pandemic has consequences for orphans who might more easily engage in the worst forms of child labour, the CEACR asked the Government to provide further information on effective and time-bound measures taken to address the situation of these children.

The worst forms of child labour: parameters and definitions

Although Convention 182 does not give a general definition of *child*, it stipulates (Article 2) that the Convention is intended to protect all persons under the age of 18 against the worst forms of child labour, regardless of their denomination as children, adolescents or young persons.

In Article 3, the worst forms of child labour are listed as the following, and each is subject to national definitions in accordance with the preparatory work to the Convention:

(a) all forms of slavery and similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom, and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict;

(b) the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances;

(c) the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties;

(d) work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

Article 4, paragraph 1 specifies that these types of work referred to under Article 3 (d) shall be determined by national laws or regulations, or by the competent authority after consultation with the organizations of employers and workers concerned, taking into consideration relevant international labour standards, in particular paragraphs 3 and 4 of the Worst Forms of Child Labour Recommendation (No. 190), 1999,[100] and paragraph 3 stipulates that the list must be periodically revised. The competent authority must identify where the types so determined exist (Article 4, paragraph 2). Paragraph 3 of the Recommendation proposes a list of activities or types of work to be considered: work which exposes children to physical, psychological or sexual abuse; work underground, under water, at dangerous heights or in confined spaces; work with dangerous machinery, equipment and tools, or involving the handling of heavy loads; work in an unhealthy environment exposing children to hazardous substances, agents or processes, to temperatures, noise levels or vibrations damaging to their health; work under particularly difficult conditions such as work for long hours, night work or work where the child is unreasonably confined in the premises of the employer. Paragraph 4 of the Recommendation allows the authorization, after consultation with workers' and employers' organizations, of employment or work as from the age of 16, where the children are fully protected and have received adequate specific training in the relevant branch of activity.

ultimate objective, because child labour is associated with poverty and underdevelopment, it will require time to be accomplished. In the meantime, this second Convention calls for immediate action to eliminate the worst forms of child labour, irrespective of the level of development or the economic situation of any country.

The UN Convention on the Rights of the Child (UNCRC, 1989)

Although far broader in its reach and comprehensive with respect to the rights of children, the UNCRC that entered into force in 1990 is another fundamental instrument that protects children's rights in the world of work.[101]

The UNCRC establishes an international definition of the child as "every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier".[102] The UNCRC reaffirms that children are entitled to many of the rights that protect adults (rights to life, non-discrimination, integrity of the person, liberty and security, privacy, asylum, expression, association and assembly, education and health) and are furthermore entitled to particular rights for children that are established by the Convention.

The UNCRC provides that ratifying States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.[103] Although it does not refer to the abolition of child labour, the instrument engages States to take "legislative, administrative, social and educational measures" to achieve the stated objectives. Also, although the UN Convention does not require the establishment of a single minimum age for admission to employment which is uniformly applicable, it requires the States to "provide for a minimum age or minimum ages for admission to employment".[104]

Therefore, whereas the Convention itself does not prescribe a precise age, the Committee on the Rights of the Child (CRC), which is the body of independent experts that monitors implementation of the UNCRC by its States Parties, has consistently indicated and recommended that minimum ages should be set in the light of the provisions of other international instruments, in particular the ILO Convention on minimum age (No. 138).[105] Furthermore, analysis of States Parties' reports reveals that almost all governments base their reporting on the ILO standards.

Measures for implementation of the ILO Conventions on minimum age (No. 138) and abolition of child labour (No. 182) and effects of ratification

In addition to the formulation of the national policy that must be pursued and to the adoption of the necessary laws or regulations setting minimum ages, Article 9 of Convention 138 requires the adoption of all necessary measures, including the provision for appropriate penalties, to ensure its effective enforcement. The supplementing Minimum Age Recommendation (No 146), 1973 emphasizes the role of labour inspection in that respect and calls for special training of labour inspectors to detect abuses (paragraph 14). Under Article 9, paragraph 2, national laws or regulations or the competent authority must define the persons responsible for compliance with the provisions giving effect to the Convention. These persons may be employers, parents or guardians of the child or young person. In particular, the employer has to keep and make available registers or other documents containing the names of persons who are less than 18 years of age and who are employed or work for the employer (Article 9, paragraph 3). The Recommendation adds that information on young persons receiving vocational training or training should also be kept (paragraph 16).

Article 1 of Convention 182 requires *immediate and effective measures* to secure the prohibition and elimination of the worst forms of child labour. The expression "immediate measures" does not mean immediate results, but rather that measures should be taken without delay and calculated to secure results. And the measures should not only aim at prohibition, but at the elimination in practice of the worst forms of child labour. The elimination of the worst forms of child labour is thus proclaimed to be a major and urgent priority for national and international action. The fact that by September 2001, only two years after its adoption, the Convention had achieved a record pace of ratifications – having already been ratified by 100 countries, which is well over half the ILO's member States – demonstrates that countries throughout the world accept it to be a major and urgent priority.

The Convention also requires ratifying member States to: design and implement programmes of action to eliminate the worst forms of child labour, in consultation with employers' and workers' organizations and other concerned groups, and monitor the implementation of such programmes; take measures to enforce the provisions of the Convention, including penal or other sanctions; take measures to prevent engagement of children, and to remove them from the worst forms of child labour; ensure access to free basic education; take account of the special needs of girls and other children at special risk; assist one another in giving effect to the Convention. Appropriate mechanisms to monitor the implementation of the provisions giving effect to the Convention must be established or designated after consultation with employers' and workers' organizations (Article 5).

Unlike Convention 138, Convention 182 contains no "flexibility clauses", and makes no distinction between developed and developing countries. Also, Convention 182 neither revises nor is in contradiction with Convention 138. Rather it singles out an area of priority action which is well within the scope of legislation on minimum age.

When it ratifies a Convention, a member State formally commits itself in international law to comply with the Convention in both law and practice. Through ratification, a country also becomes formally obliged to report to the international community on the measures it has taken to bring its legislation into line with the requirements of the Convention, and it is accountable before the international community for any allegation of violation. Ratification is thus a powerful stimulus to action. It sends a clear message domestically and internationally demonstrating the commitment of a country to pursue a social policy objective in conformity with international standards, and to submit its actions to international scrutiny. Application of ratified Conventions is supervised,[97] and as Conventions 138 and 182 are recognized by the ILO to be priority Conventions, each member State ratifying them is obliged to report on their application to the ILO every two years.

Access to education

The Right to Education is a fundamental human right that occupies a central place among human rights because it is essential and indispensable for the exercise of all other rights, and for development. No civil, political, economic or social right can be easily exercised by individuals without a minimum level of education.

> *... as an empowerment right, education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty, and obtain the means to participate fully in their communities ...*
>
> General Comment 13 (E/C.12/1999/10) on the right to education related to article 13 of the International Covenant on Economic, Social and Cultural Rights

The contending alternative to child labour is education, and the tension between them is made clear in international labour standards on minimum age for admission to work or employment. Laws and regulations making school attendance compulsory for all children up to a minimum age established for admission

The ILO Declaration on Fundamental Principles and Rights at Work, 1998

The ILO Declaration commits member States to respect and promote four groups of principles and rights that include *the abolition of child labour* and commits them to do so whether or not they have ratified the relevant Conventions. The other groups of fundamental principles and rights addressed are freedom of association and the right to collective bargaining, the elimination of forced or compulsory labour, and the elimination of discrimination in respect of employment and occupation.

The basis is that these rights are universal, and apply to all people in all States, regardless of the level of economic development, recognizing that economic growth does not by itself guarantee equity, social progress and eradication of poverty. Commitment arises from the very fact of membership in the organization.

Importantly, the commitment engages a follow-up procedure, and member States that have not ratified core ILO Conventions are asked yearly to report on the in-country status of the stipulated rights and principles and to note any reasons for non-ratification, as well as needs for technical assistance. The country reports are reviewed by the Committee of Independent Expert Advisers who submit their observations to the ILO's Governing Body for consideration. In this way, although the ILO Declaration was adopted in 1998, a year before the Convention on the Worst Forms of Child Labour, it continues to be a means to promote and keep a spotlight on both ILO Conventions 138 and 182 in countries that have not ratified either or both. Thus, all ILO member States, even if they have not yet ratified the ILO's basic child labour Conventions, are under an obligation to make their best efforts to abolish child labour, and particularly its worst forms in good faith and in accordance with the ILO Constitution.

to employment or work would, if they were properly enforced, make a major contribution to eliminating many of the worst forms of child labour. Regular school attendance would make bonded labour and many other forms of exploitation of children virtually impossible. It would also rule out the employment of children in many hazardous industries and occupations which require presence at the work-site for a full shift.

In these ways, children could be made an undesirable and expensive form of labour. Yet a simple glance at Main table 4 shows that in the case of 13 countries affected by HIV/AIDS (one third of countries included in the analyses of this report), the reported legal minimum age in order to work *precedes* the reported legal school-leaving age by one or two years. This observation lends support to assessments that in many resource-poor settings, children are in reality normally expected to be at work full time at ages when they should still be at school, and underscores the urgent need to vigorously address the global issue of child labour. Furthermore, despite the commitments made by Governments under international instruments to provide education for all, especially free and compulsory quality basic education, millions of children remain deprived of educational opportunities, many of them on account of poverty, even if they are not at work. Realizing the right to basic education is thus also one of the largest moral challenges of our times.

Beyond the immediate benefit of education in competing with child labour, education brings many long-term benefits to the child concerned and to society at large, especially if it is of good quality. The attraction of the longer-term gain of quality education to societies could on its own merit lead to the ultimate demise of all forms of child labour if good education were made truly universally accessible to all children.

Enjoyment of the right to education is the overall objective of several legal traditions that have approached the issue from different angles, including determination of the minimum age to work; implementation of compulsory schooling; and promotion of the human rights and personal development of each individual. Furthermore, rights-based policy and action in response to the HIV/AIDS epidemic is fundamental and provides the grounds for access to education that specifically addresses information needs to prevent transmission of HIV.

Minimum age at work

The ILO's Convention on minimum age (No. 138) provides that the minimum age for admission to employment or work must not be less than the age of completion of compulsory schooling and in any case, not less than 15 years.[106] In its General Survey adopted by the International Labour Conference of 1973, the Committee of Experts on the Application of Conventions and Recommendations (CEACR)[107] emphasized: *"the necessity of linking the age of admission to employment or work to the age limit for compulsory education, where it exists. If the two do not coincide various problems may arise. If schooling ends before young persons may work legally, there may be an enforced period of idleness, especially in countries in which no schooling beyond that required is available for some or all children; and as was pointed out during the discussion of these instruments in the Conference, this may lead to delinquency or other problems. In such cases, there is a need for the school-leaving age to be raised to the minimum age generally accepted for employment, and for sufficient school facilities to be provided. On the other hand, if the age at which children may legally work is lower than the age of completion of compulsory schooling, then*

Monitoring of the UNCRC and supervision of the ILO Conventions

The ILO and the UN mutually benefit from the supervision of each other's legal instruments. Information received by the UN Committee on the Rights of the Child is an invaluable contribution to the work of the ILO Conventions' supervisory bodies. Similarly, the Committee on the Rights of the Child takes full account of the results of the detailed examination by the ILO bodies of the application of the ILO's child labour Conventions.

In view of the complementary nature of the UN and ILO Conventions, the Committee on the Rights of the Child systematically recommends the ratification of ILO Conventions 138 and 182 to those countries that have not yet ratified them. It has always referred to the ILO Conventions as the frame of reference in assessing national child labour situations.

children required to attend school may also be legally competent to work, an obvious contradiction." [108]

Compulsory schooling

In providing for the right to education, the UNCRC requires States to ensure that primary education is free and compulsory.[109] Although a minimum age for completion of compulsory education is not mentioned, the Committee's Guidelines for Periodic Reports require States *"to indicate the particular measures adopted to make primary education compulsory and available free for all, particularly children, indicating the minimum age for enrolment in primary school, the minimum and maximum ages for compulsory education..."*.[110]

Analysis of States Parties' reports reveals examples where education is not compulsory at all and others where the obligation is enshrined in the Constitution or other legal instruments but do not provide for a minimum number of years between enrolment and completion of school. Some States cite economic or social conditions as obstacles to the full realization of the goal of free and compulsory primary education.

Human rights and personal development

The enjoyment by everyone of the right to education is enshrined in various United Nations instruments.[111] The International Covenant on Economic, Social and Cultural Rights (ICESCR) adopted in 1966 contains the most wide-ranging and comprehensive article on the right to education in international human rights law.[112] Furthermore, the Committee on Economic, Social and Cultural Rights has stated that education is both a human right in itself and an indispensable means of realizing other human rights.[113] As an empowerment right, education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty and obtain the means to participate fully in their communities. Education has a vital role in empowering women, safeguarding children from exploitative and hazardous labour and sexual exploitation, and promoting human rights and democracy. The Committee recalled that it was *"aware that for millions of people throughout the world, the enjoyment of the right to education remains a distant goal. Moreover, in many cases, this goal is becoming increasingly remote"*. It stated that it was also *"conscious of the formidable structural and other obstacles impeding the full implementation"* of the right to education in many countries.[114]

The right to HIV-AIDS relevant education

The human rights approach is also the basis for comprehensive global action to control HIV/AIDS, including programmes for prevention, treatment and care. In this regard, the International Guidelines on HIV/AIDS and Human Rights published jointly by the Office of the United Nations High Commissioner for Human Rights (OHCHR) and UNAIDS in February 1998 provide for States to increase awareness of the human rights principles underlying a positive and sustainable response to HIV/AIDS, as well as to use action-oriented measures in the areas of law, administrative policy and practice to protect human rights and achieve HIV-related public health goals.

The Guidelines provide that States should ensure the access of children and adolescents to adequate health information and education, including information related to HIV/AIDS prevention and care, inside and outside school, which is tailored appropriately to age level and capacity and enables them to deal positively and responsibly with their sexuality.[115] They add that such information should take into account the rights of the child to have access to information, privacy, confidentiality, respect and informed consent and means of prevention, as well as the responsibilities, rights and duties of the parents, and that efforts to educate children about their rights should include children living with HIV/AIDS.

The Guidelines also stipulate that Article 26 of the Universal Declaration of Human Rights states that "Everyone has the right to education...Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship...".[116]

This right includes three broad components that are of fundamental importance in the context of HIV/AIDS. The Guidelines indicate that:

- Both children and adults have the right to receive HIV-related education, and access to education on HIV/AIDS is life-saving. It is the State's obligation to ensure, in every cultural and religious tradition, that

appropriate means are found so that effective HIV/AIDS information is included in educational programmes inside and outside schools. Studies indicate that provision of education and information to children does not promote, but rather delays sexual activity.[117]

- States should ensure that both children and adults living with HIV/AIDS are not discriminated against in being denied access to education, or subjected to restrictions because of their HIV status. There is no public health rationale for such measures.

- States should, through education, promote understanding, respect, tolerance and non-discrimination in relation to persons living with HIV/AIDS.

The human rights of children

Child labour is an unequivocal violation of fundamental human rights. The United Nations Convention on the Rights of the Child has provided since 1989 the overarching language that enjoins ratifying States Parties to recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

On the basis of being human rights violations, some of the forms of child labour among those established by the ILO as *worst forms* – notably the sale and trafficking of children and the use of children for prostitution and pornography – have long been objects of denunciation and condemnation. By 1990, international awareness of the commercial sexual exploitation and the sale of children had grown to such a level that the United Nations Commission on Human Rights[118] by resolution created the mandate of a Special Rapporteur on the sale of children, child prostitution and child pornography.[119] The mandate-holder is required to investigate the exploitation of children around the world and to submit reports on the findings to the United Nations General Assembly and to the Commission on Human Rights, making recommendations for the protection of the rights of the children concerned. These recommendations are targeted at Governments, other United Nations bodies and non-governmental organizations. Subsequently, also, an Optional Protocol to the Convention on the Rights of the Child (UNCRC) was adopted in 2000 on the sale of children, child prostitution and pornography.[120]

In 2001 the Commission on Human Rights drafted a resolution on HIV/AIDS, *"The protection of human rights in the context of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS)"*, requesting the Special Rapporteur on the sale of children, child prostitution and child pornography, along with all Special Representatives, other Special Rapporteurs and Working Groups of the Commission, to integrate the protection of HIV-related human rights within their respective mandates.[121] Among other actions, the Special Rapporteur will implement this request by incorporating the International Guidelines on HIV/AIDS and Human Rights into his method of work.

HIV/AIDS and the rights of the child

At its thirty-second session in 2003, the Committee on the Rights of the Child (CRC) made a General Comment on HIV/AIDS and the rights of the child.[122] The CRC stated that initially, children had been considered as only marginally affected by the epidemic. However, the international community had discovered that they were unfortunately at the heart of the problem.[123] The objectives of the General Comment were, among others, to identify further and strengthen understanding of all the human rights of children in the context of HIV/AIDS; to promote the realization of the human rights of children in the context of HIV/AIDS, as guaranteed under the Convention on the Rights of the Child; and to contribute to the formulation and promotion of child-oriented plans of action, laws, policies to combat the transmission, and mitigate the impact of HIV/AIDS at the national and international levels.[123]

The General Comment stipulates that adequate measures to address HIV/AIDS can be undertaken only if the rights of children and adolescents are fully respected.[125] The CRC emphasized the right to non-discrimination. They wished to stress that prevention, care, treatment and support are mutually reinforcing elements and provide a continuum within an effective response to HIV/AIDS.[126] They also underscored the role of education, and reminded States Parties of their obligation to ensure that primary education is available to all children.[127] The CRC stated that States Parties must make adequate provision to ensure that children affected by HIV/AIDS can stay in school, and ensure the qualified replacement of sick teachers so that children's regular attendance at school is not affected, and that the right to education of all children living within these communities is fully protected. The General Comment also mentioned the need to protect children victims of sexual and economic exploitation.[128]

The Committee finally reaffirmed the recommendations that had emerged after general discussion on children living in a world with HIV/AIDS[129] and called upon States Parties, notably to adopt and implement national and local HIV/AIDS-related policies, including effective plans of action, and programmes that are child-centred, rights-based and incorporate the rights of the child under the Convention, while including earlier recommendations;[130] to review existing laws or enact new legislation with a view to implementing fully the right to non-discrimination, and in particular to expressly prohibiting discrimination based on real or perceived HIV/AIDS status so as to guarantee equal access of all children to all relevant services.[131]

The International Guidelines provide for particular attention to be paid to the human rights of children and women, emphasizing that many of these rights are relevant to HIV prevention, care and support for

children, such as freedom from trafficking, prostitution, sexual exploitation and sexual abuse, owing to the fact that along with the other highly damaging consequences of sexual violence against children, it increases their risk of exposure to HIV and AIDS.[132]

After the International Guidelines on HIV/AIDS and Human Rights, two highly important instruments were propounded by the UN system that give further definition to the critical role of human rights as a basis to take action against the HIV epidemic, in particular where children and women are concerned. These are the Millennium Declaration and the Declaration of Commitment on HIV/AIDS.

The Millennium Declaration was adopted by 189 nations and signed by 147 heads of States and Government in 2000. On the basis of the Declaration, eight goals were defined and their achievement set for 2015, which are termed the Millennium Development Goals (MDGs). These goals together respond to the world's main development challenges at the opening of the 21st century, including poverty, HIV/AIDS, full implementation of universal primary education, and full realization of gender equality. Most of the MDGs, if achieved, would contribute directly or indirectly to the elimination of child labour and to substantial reduction in HIV transmission (see box).

The Declaration of Commitment was adopted by resolution by 189 heads of State and Government at the 2001 Special Session of the General Assembly on HIV/AIDS of the United Nations.[133]

The Declaration notes in preamble that *"women, young adults and children, in particular girls, are the most vulnerable".*[134] Accordingly, the Declaration refers to a number of actions to reduce vulnerability, notably to *"develop and/or strengthen strategies, policies and programmes which recognize the importance of the family in reducing vulnerability, inter alia, in educating and guiding children ... to reduce the vulnerability of children and young people by ensuring access of both girls and boys to primary and secondary education, including HIV/AIDS in curricula for adolescents".*[135] The Declaration also establishes the commitment of governments to implement national policies and strategies to assist, protect, and ensure the enjoyment of human rights by all children orphaned and made vulnerable by AIDS. In this regard, the Declaration is important in re-affirming that the full realization of human rights and fundamental freedoms by men and women and boys and girls is essential to achieving ascendancy over the HIV epidemic, and that at the same time respect for the human rights of all persons living with HIV/AIDS is the only basis for action at both national and global levels.

Millennium Development Goals

Goal 1. Eradicate extreme poverty and hunger

Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day

Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Goal 2. Achieve universal primary education

Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

Goal 3. Promote gender equality and empower women

Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015

Goal 4. Reduce child mortality

Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Goal 5. Improve maternal health

Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

Goal 6. Combat HIV/AIDS, malaria, and other diseases

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

Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Goal 7. Ensure environmental sustainability

Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Target 11: Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers

Goal 8. Develop a global partnership for development

Target 12: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction – both nationally and internationally)

Target 13: Address the special needs of the least developed countries (includes tariff-and quota-free access for exports, enhanced programme of debt relief for HIPC and cancellation of official bilateral debt, and more generous ODA for countries committed to poverty reduction)

Target 14: Address the special needs of landlocked countries and small island developing states (through the Programme of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions)

Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

Target 16: In cooperation with developing countries, develop and implement strategies for decent and productive work for youth

Target 17: In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries

Target 18: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications

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Notes (including technical notes, and general and legal endnotes)

Technical notes

Sources: Main tables

The principal sources of the Main tables are: the United Nations Population Division, for estimates and projections of populations by age and sex with and without HIV/AIDS, a basis for all the tables; the ILO, for the most recent estimates and projections of the economically active populations for all countries; the World Bank, for estimates and projections of GDP and GDP/ca for all countries; and UNAIDS, for the estimated prevalence of HIV in persons aged 15 to 49 and persons 15 years and over, by country, for 2005, as well as estimates of the numbers of orphans aged 0–17 years by country. To include labour force participants aged 50 to 64 years the ILO adjusted the prevalence estimates for the 50 to 64-year-old age group by estimating deaths with and without HIV/AIDS in that age group, and applying the multiplier to HIV prevalence estimates and/or economically active population rates, where necessary (see general endnote 3). The sources for each Main table are listed below, along with general definitions and notes. Each Main table is footnoted for specific data commentary.

Throughout the tables, *estimates* refer to periods for which observations later confirm (or modify) earlier projections (for example, national censuses or surveys), whereas *projections* refer to periods for which only projections are available (this may include years in the past for which projections are not confirmed because observations are still not available). Most generally, estimates are for past periods, whereas projections are for future periods. In this report, data prior to 2005 are generally estimates (including 2005 itself), whereas data for 2006 and beyond are projections.

Main table 1

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main table 2

ILO, 2005e; World Bank, 2006; also see general endnotes 15 to 24.

Main table 3

ILO/IPEC/SIMPOC, 2006a; ILO/IPEC/SIMPOC, 2006b; UCW, 2006; UN, 2005a; UNAIDS, 2006b; UNESCO, 2006b.

Definitions and notes:

1. The Net Enrolment Rate is the number of pupils in the theoretical age group for a given level of education enrolled in that level expressed as a percentage of the total population in that group.
2. The Survival Rate is the percentage of children who start primary education who will reach a given grade (in this case grade 5).
3. The youth literacy rate in Sudan applies to North Sudan only.
4. Enrolment rates and ratios for the United Republic of Tanzania do not include Zanzibar, whereas population data do. The population of Zanzibar is approximately 3 per cent of the total population.
5. Orphans as a result of AIDS include children under 18 years who have lost either one or both parents as a result of AIDS (UNAIDS, 2006b).
6. The proportion of orphans as a result of AIDS is based on the estimated total population of children under 18 years in each country in 2005 (UN, 2005a; UNAIDS, 2006b).

Main table 4

ILO, 2005e; UN, 2005a; UNAIDS, 2006b; UNESCO, 2006b.

Definitions and notes:

1. The year of reference for the youth literacy rates, upper secondary overall gross enrolment ratios, the estimated gross enrolment ratio in technical and vocational programmes and the estimated gross enrolment in programmes other than technical and vocational correspond to the calendar year in which the academic year ends.
2. The Gross Enrolment Ratio refers to the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level

of education. For the tertiary level, the population used is the five-year age group following on from the secondary school-leaving age.

3. With respect to Technical and vocational education, this type of programme is designed mainly to lead pupils to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade (or class of occupations or trades). Successful completion of such programmes normally leads to a labour market-relevant vocational qualification recognized by the competent authorities (e.g. Ministry of Education, employers' associations, etc.) in the country in which it is obtained.
4. The youth literacy rate in Sudan applies to North Sudan only.
5. Enrolment rates and ratios for the United Republic of Tanzania do not include Zanzibar, whereas population data do. The population of Zanzibar is approximately 3 per cent of the total population.

Main tables 5A and 5B

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main table 6

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main table 7

UN, 2005a; UNAIDS, 2006b.

Main tables 8A, 8B, 8C, and 8D

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main tables 9A and 9B

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main table 10

ILO, 2005e; UN, 2005a; UNAIDS, 2006b.

Main table 11

ILO, 2005; UN, 2005a; UNAIDS, 2006b.

General endnotes

[1] HIV prevalence estimates for Ethiopia and Liberia are not available for 2005; as other data for both countries are available, however, they are included in the tables and analyses of this report. The occasional exclusion of other countries due to lack of data, if any, is footnoted below each Main table.

[2] The dependency ratio of a population is the ratio of the sum of the numbers of persons 0–14 years of age and 65 years old and over (numerator) to the number of persons of working age, i.e. 15–64 years (denominator). The dependency ratio is usually expressed per 100 persons.

[3] In the absence of data, in 2004 the ILO conservatively estimated the number of working-age adults 50 to 64 years living with HIV/AIDS to be about 800,000 globally. The newly estimated numbers of adults 15 years and over provided by UNAIDS and WHO imply that about 2.8 million adults 50 years and over are living with HIV/AIDS worldwide. The difference is due to the inclusion of persons 65 years and over, as well as being consistent with ageing of the population living with HIV/AIDS; some difference also arises from differences in methodology of estimation. For the sake of simplicity, all persons 15 years and over estimated to be working and to be living with HIV/AIDS are termed "working-age persons" here, even though they include persons who are over 64 years and therefore beyond the usual working ages. In all statistical analyses and the Main tables, however, only persons 50 to 64 years are included as "working-age" persons.

[4] Strictly speaking, what is lost is employment, but the term "jobs" is used in the report for convenience.

[5] This is a weighted average for 14 countries in Sub-Saharan countries where the proportion of children among the persons treated ranged between 3 and 11 per cent.

[6] This is an *equivalent* proportion, not a true proportion, as some children began treatment in earlier years and would count among those being treated by the end of 2005. Without the number of newly treated children in 2005, the number of deaths expected in 2005 that are averted cannot be specified.

[7] In the case of 14 of the 38 countries, data had been collected in an ILO/IPEC/SIMPOC surveys, and in the case of the 24 others, data were drawn from other surveys (notably World Bank LSMS surveys and UNICEF's MICS surveys among others). Data from surveys other than SIMPOC sources were adjusted in accordance with SIMPOC guidelines to achieve comparability. For an elaboration of the sources of the data and the adjustment methodology, see ILO/IPEC/SIMPOC (2006b).

[8] The concept of *inability* – or of an individual being *unable* – to work is used in contradistinction to "medically fit for appropriate employment" (ILO, 2001), and relates to the clinical inability to work that progressively occurs in the course of untreated symptomatic AIDS, whether or not it falls under strictly medical observation. The term is used to apply to the acquired and enduring incapacity to work that very often results in withdrawal from the economically active population, to emphasize the divergence (to the extent possible) with persons with disabilities, on the one hand, and with labour force participants who are in a period of sick leave (even extended sick leave), on the other. An unknown share of persons estimated to be unable to work will still be employed and benefiting from reasonable accommodations of various types. Generally, however, all untreated persons living with HIV/AIDS will eventually become totally disengaged from productive activity.

[9] The basis for Stages of HIV and AIDS and activity levels are as follows:

Endnotes table 1: Stages of HIV and AIDS and activity level

Stages of HIV and AIDS and activity level

Clinical stage I

Normal activity and *asymptomatic*

Clinical stage II

Normal activity, but some *weight loss*, *minor skin* and *mouth infections* and *recurrent sinusitis*

Clinical stage III

Bedridden for up to 50 per cent of the time in the last month, and numerous symptoms: *weight loss*, *diarrhoea*, *fever*, *mouth infections*, *tuberculosis* and other *severe lung infections*, including *pneumonia*

Clinical stage IV

Bedridden for more than 50 per cent of the time in the last month, and multiple symptoms: *wasting*, *pneumonia*, and *fungal, viral* and *bacterial infections* of the *mouth, brain, digestive system* and *other organs*

At stage IV also, *encephalopathy due to HIV* manifests itself in disabled cognitive and/or motor functions that interfere with the activities of daily life and that are progressive over weeks and months until death.

Source: WHO, 2003a:49-50.

[10] The comparison is of an ***equivalent*** number of persons, and does not give a true proportion, as some persons being treated began treatment in earlier years and would count among those being treated by the end of 2005. Without the number of newly treated persons in each year, and their continuation rates, the true proportion of persons newly needing treatment in 2005 who will otherwise die cannot be specified.

[11] The economic dependency ratio in the presence of HIV/AIDS is the ratio of the sum of the population under 15 years, the population aged 65 years and over, persons aged 15–64 years who are not economically active and persons aged 15-64 years who are unable to work as a result of HIV/AIDS (numerator), to the population of persons aged 15-64 years who are economically active, and excluding labour force participants who are unable to work as a result of HIV/AIDS (denominator). Labour force participants in the denominator include workers who are HIV-positive and in Stages I and II of HIV/AIDS (WHO, 2003a). In the absence of HIV/AIDS, the same ratio is calculated without adding persons aged 15-64 years who are unable to work as a result of HIV/AIDS in the numerator, and without excluding labour force participants who are unable to work as a result of HIV/AIDS in the denominator. The economic dependency ratio is expressed per 100 economically active persons. The impact due to deaths is the difference in the two economic dependency ratios due to the difference between deaths in the presence and in the absence of HIV/AIDS, expressed as a percentage. The additional impact due to illness prior to death is the difference between the economic dependency ratio in the presence and in the absence of HIV/AIDS, over and above the difference due to mortality with and without HIV/AIDS. It is also expressed as a percentage. The total impact is a product of the impact due to deaths and the impact due to illness. For example, if the impact due to death is 5 per cent, and due to illness is 2 per cent, the total impact would be 1.05*1.02=1.071, yielding a total impact of 7.1 per cent. The definition of a dependency ratio is provided in the heading of Main table 1. The ***adjusted*** dependency ratio used to illustrate changes in the social burden is the dependency ratio in the presence of HIV/AIDS, in which persons of working age (aged 15-64 years) who are unable to work as a result of HIV/AIDS are added to the numerator of dependants, and removed from the denominator of persons of working age. The impact due to deaths is the difference between the dependency ratio calculated for a population in the presence and in the absence of HIV/AIDS. The impact due to illness is the additional impact due to the proportion of working-age persons who are unable to work, and is the difference between the dependency ratio in the population with HIV/AIDS and the adjusted dependency ratio for the same population. The total impact is a product of the impact due to deaths and the impact due to illness.

[12] See general endnote 9.

[13] The numerators are the same in both comparisons (lives saved due to vaccination); the denominator here consists of losses projected under the vaccination scenario (see Main table 10 Summary).

[14] It is well to recall at this point that ARVs also can themselves have powerful preventive effects at the population level, given that they lower the transmissibility of HIV from treated individuals. This effect has not been taken into account in the assumptions underlying the projections regarding increase in ARV coverage, but a fraction of the vaccination effect could, theoretically, be imputed to the effects of treatment coverage alone.

[15] Various studies have documented the impact the epidemic would have on employment and labour supply, but none to our knowledge has quantified the employment loss due to HIV/AIDS. This estimation of employment forfeited due to HIV/AIDS appears to be the first effort at assessment at national, regional or global level.

The method of estimation of the annual rate of GDP loss attributable to HIV/AIDS is similar to the one developed by Coulibaly (2004), but the method was elaborated

to include additional variables and a robust regression diagnostic. The method rested on a system of three equations to model the interactions between HIV/AIDS, health capital and economic growth. The system of equations was estimated with a Two-Stage Least Squares (TSLS) method combined with a heteroskedasticity consistent covariance matrix estimator. The model employed to estimate employment forfeited is based on a series of equations that include GDP growth rate and employment growth rate lost in the presence of AIDS and employment elasticity to GDP. It is well to note that the employment relationship obtained is not strictly linear. Employment growth lost depends on factors inherent to each country such as the GDP and employment growth over the period, and the ability of the country's economy to create jobs. In addition, regional and global estimates were weighted where appropriate with the population and total employment. Consequently, regional and global employment forfeited does not strictly reflect the exact sum of employment forfeited in each individual country or region. Of the 60 countries considered to be the most affected by HIV/AIDS, 17 were not included in the analysis because of data availability and reliability (see footnote to Main table 2). The period of analysis is 1992-2004.

Estimated employment growth forfeited is obtained from the following equations:

$$Y\_NOAIDS = Y\_AIDS + Y\_LOST \quad (1)$$
$$E\_NOAIDS = E\_AIDS + E\_LOST \quad (2)$$
$$B = (\partial E / \partial Y)\,(Y/E) \quad (3)$$

(2) => E_LOST = E_NOAIDS – E_AIDS

Assuming Y/E is constant and all other things being equal,

$$E\_NOAIDS = B*Y\_NOAIDS \quad (4)$$

(1) and (4) give the model for employment growth forfeited as follows:

E_LOST = B (Y_AIDS + Y_LOST) – E_AIDS

Where:

Y_NOAIDS = GDP rate of growth in the absence of AIDS

Y_AIDS = current GDP rate of growth

E_NOAIDS = employment rate of growth as if there were no AIDS

E_AIDS = current employment rate of growth

B = employment to GDP elasticity

[16] The relationship is, more specifically, the employment intensity (or elasticity) of growth. Several shortcomings of this relationship should be noted and have been discussed in the literature (see, for example, Kahn, 2001; Kapsos, 2005; and Padalino and Vivarelli, 1997).

[17] See Hammer et al., 1997; Hogg et al., 1998; Koenig et al., 2004; Laurent et al., 2002; Marins et al., 2003; Palella et al., 1998; and Wools-Kaloustian et al., 2006.

[18] Just recently, Thirumurthy et al. (2006) have estimated the economic impacts of ARVs on the labour supply of adult AIDS patients receiving treatment and on the labour supply of children and adults living in the patients' households.

[19] See Ruger et al., 2001; Strauss and Thomas, 1998; and Thomas and Frankenberg, 2002.

[20] See Morgan et al., 2002.

[21] Marins et al., 2003.

[22] For a fuller discussion, see Beegle, 2005 and Thirumurthy et al., 2006.

[23] The study estimating the economic impacts of ARVs on the labour supply of adult AIDS patients receiving treatment and on the labour supply of children and adults living in the patients' households was conducted over one year, between March 2004 and March 2005 (see Thirumurthy et al., 2006).

[24] See Severe et al., 2005.

[25] An orphan in this context is a child under 18 years who has lost either or both parents due to AIDS, unless the discussion specifies otherwise. HIV/AIDS is more likely than other causes of death to create double orphans, because if one parent becomes HIV-positive, there is a significant probability that the other parent is or will become HIV-positive, and that in the absence of treatment, both will eventually die. Accordingly, countries with high HIV prevalence are expected to have a disproportionately greater number of double orphans as the epidemic advances. According to UNICEF, Sub-Saharan Africa had almost as many double orphans in 2003 (7.7 million) as Asia (7.9 million), although Asia has about twice as many orphans in total, because of the region's vastly greater population when compared to Africa. Of the 7.7 million double orphans in Sub-Saharan Africa, more than 60 per cent have lost a parent due to AIDS (and in many cases both). The number of double orphans is projected to increase in Sub-Saharan Africa to 2010 (see figure 3, page 27).

[26] Each year, children who are orphans "graduate" out of the pool when they are no longer minors, so the number of children newly orphaned each year has also continued to rise, but in far greater numbers: from approximately 3.2 million in 1990 to 5.2 million in 2003, with the proportion due to AIDS rising progressively.

[27] The age distribution of children who are orphaned is consistent with the pattern of exposure of their parents to HIV in early adulthood and progression to AIDS after a decade or so: it is estimated that 12 per cent of orphans as a result of AIDS were aged 0 to 5 years in 2003, 33 per cent were 6 to 11 years and 55 per cent were 12 to 17 years.

[28] At present, Sub-Saharan Africa is the only region for which orphanhood due to AIDS is estimated, and similar data on orphans due to AIDS are not available for other regions. Research suggests, in any case, that the number of orphans is decreasing in all regions except Sub-Saharan Africa, due to general improvements in health and the patterns of low or decreasing fertility in other parts of the world.

[29] Many orphaned children are exposed to high levels of psychosocial stress and stigma; they express feelings of depression, anger, guilt and fear for their futures, and their experiences can lead to various psychological problems such as post-traumatic stress syndrome, alcohol and drug abuse, aggression and suicide (UNAIDS 2004b; Foster, 2002). Moreover, orphaned girls tend to be most severely affected as they traditionally hold a lower status in many societies and are more vulnerable to sexual exploitation.

[30] Children affected by HIV/AIDS and children living in HIV/AIDS affected households are children whose parents have died (one or both) following an AIDS-related illness or are suffering from HIV/AIDS (one or both parents).

[31] See UCW, 2006.

[32] See ILO/IPEC, 2006b.

[33] Data were collected informally from World Bank task teams and may not reflect recent changes in policy and practice at the country level. Only countries affected by HIV are shown (the original source has information for 103 countries).

[34] See Ainsworth, 1993; Ainsworth and Filmer, 2002; Case et al. 2003; Steinberg et al., 2002; Tumushabe et al., 1999; and UNAIDS, 2004b.

[35] This list is not exhaustive: see http://www.unicef.org/lifeskills/index_14926.html

[36] See ILO/IPEC-GOU (Uganda), 2004.

[37] Poverty reduction efforts are critical because macroeconomic factors (such as the impact of structural adjustment programmes) have been found to be as likely as the AIDS epidemic to reduce a family's ability to keep children in school.

[38] Not all work carried out by children – persons under 18 years – is considered as child labour in international conventions. The term "children's work" is used to cover all work and related activities performed by children including light work as denoted in ILO Convention No. 138 (Minimum Age), and forms and situations of work performed by children and adolescents that does not affect their health and personal development, or interfere with their schooling. Child labour is a narrower concept that refers only to negative or undesirable forms of work that should be eliminated in accordance with ILO Conventions No. 138 (Minimum Age) and No. 182 (Elimination of the Worst Forms of Child Labour), and the UN Convention on the Rights of the Child (1989) (see Chapter 5). For statistical purposes, children's work covers all paid work (market production) and certain types of unpaid work (non-market production) in both the formal sector and informal economy. According to the international definition of employment, one hour of work per week counts as work during that week. Children working as maids or domestic workers in someone else's household are considered working. Children engaged in domestic chores within their own households are not, however, considered as working even if these activities also a have a direct impact on their welfare. Estimates of working children therefore do not include children performing household chores in their own household, although the number of these children is potentially high. Children performing household chores are often classified as "inactive"; when such children have also been removed entirely from school, they literally disappear from observation. The concept of working children based on actual work performed also excludes children seeking work or those who are currently unemployed. For more information on the statistical definitions of child work and child labour, measurement methodologies, and recent trends in child work and labour, see ILO/IPEC/SIMPOC, 2006b. It is also well to note that the 18th International Conference of Labour Statisticians, which is likely to be held in 2008, is expected to seek to develop, among other things, global standards for child labour data collection and measurement.

[39] See ILO/IPEC and Republic of Zambia, n.d.

[40] See ILO/IPEC, 2002h.

[41] See ILO/IPEC-GOU (Uganda), 2004.

[42] Rapid assessment reports focus on areas that are known to have substantial concentrations of children involved in activities hard to identify and quantify through structured sample surveys. Their scope and findings are therefore limited, and primarily qualitative. Nevertheless, even if this methodology has limitations, it is often the only information source available for children engaged in the worst forms of child labour.

[43] See Khmer HIV/AIDS NGO Alliance and Family Health International, cited in UNAIDS, 2004b.

[44] Both age and nature of work serve as criteria to define children's work and child labour. The term working children includes all children who are performing activities not authorized under ILO Conventions Nos. 138 and 182, i.e. all children under 15 years (except children 13 to 15 years, or in some cases 12 to 14 years involved in "light work", i.e. fewer than 14 hours per week) and children 15 to18 years who are engaged in the worst forms of child labour.

[45] See general endnote 38.

[46] The proportions of working children come from surveys conducted between 1994 and 2003. Only 3 surveys pre-dated 1999, and only 3 surveys were conducted in 2002/2003. As 32 surveys were conducted in 1999-2001 (20 surveys were conducted in 2000 alone), it was reasonable to weight the proportions of children working from each survey by the 2000 population to estimate the total number of children working for purposes of illustration. Also, as the proportions of children working were estimated on the basis of different types of surveys, an adjustment was applied to make the proportions comparable between countries (see Main table 3 in Chapter 1). For information on trends over time in child work and child labour, see ILO/IPEC/SIMPOC, 2006b.

[47] Given that most countries with data are in Sub-Saharan Africa and that most countries in Sub-Saharan Africa are represented in the data, a rough estimate of the numbers of children for all countries in the region

was extrapolated that takes account of the populations of the remaining countries, and applicable ranges in the proportion of children working. Using sub-regional groupings, average proportions of children working were found to range from about 20.6 per cent in Southern Africa, 27.6 per cent in East Africa, and 35.1 per cent in Central Africa to 54 per cent in West Africa. The estimated proportion of children working was imputed for remaining individual countries on a sub-regional basis to arrive at an overall regional estimate for these illustrative purposes only.

[48] The term "unconditional" worst forms of child labour is sometimes used for statistical purposes to refer to the forms of labour listed that are not included in the category of hazardous child labour, but are referred to in §(a) to (c) of Article 3 of ILO Convention No. 182. The term "unconditional" worst forms of child labour does not otherwise cover any legal division of the worst forms of child labour as defined in Convention No. 182. Hazardous work includes domestic service when under 16 years and street trades. It is important to note that, even if they do include hazardous work, ILO global and regional estimates of child labour do not include children engaged in the "unconditional" worst forms of child labour. These forms of labour are included in a separate estimation discussed in the text.

[49] See general endnote 48.

[50] According to the Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography, child prostitution means "the use of child in sexual activities for remuneration or any form of consideration", whereas child pornography means "any representation, by whatever means, of a child engaged in real or simulated explicit sexual activities or any representation of the sexual parts of a child for primarily sexual purposes".

[51] For a more detailed discussion, see ILO, 2006e.

[52] Children may be at greater risk than adults of acquiring sexually transmitted infections, including HIV/AIDS, because they are more likely than adults to be injured by penetrative sex. In addition, HIV transmission rates are higher to women and girls, and because most sex workers are female, girl sex workers have among the highest receptive transmission rates for HIV of any group.

[53] See, for example, UNFPA, 2006.

[54] Youth comprise young men and women who are older adolescents who are still underage, as well as young adults. "Young people" are defined by the United Nations as persons aged between 15 and 24 years (see United Nations, 1995). The terms "young people", "young men" and "young women" may be used interchangeably with "youth" in the text. The ages included in all references to youth are 15 to 24 years, unless specified otherwise. All persons under 18 years are legally children, and references to "child labour" in respect of youth refer to the worst forms of child labour performed by persons aged 15 to 17 years.

[55] See United Nations, 2005c.

[56] Underemployment can be categorized into visible and invisible underemployment. The former consists of work of inadequate duration such as involuntary part-time employment and temporary short-term work. Invisible underemployment encompasses work of inadequate productivity. See Holger and Strobl, 2001.

[57] In 19 surveys conducted most recently in Sub-Saharan countries reported by UNAIDS, use of condoms was reported by more than 50 per cent of young men in only 6 countries: Botswana, Burkina Faso, Ghana, Senegal, and Uganda, and by young women in only 4: Botswana, Burkina Faso, Lesotho, and Uganda (see UNAIDS, 2006b: 66). See also Youth and HIV at www.youthandhiv.org.

[58] This refers to youth with one or both parents who have symptomatic AIDS or who have died as a result of AIDS, or who are ill themselves from an HIV-related illness.

[59] See Brown, et al., 2005.

[60] Sengendo and Nambi (1997) and Daileader Ruland et al., 2005.

[61] Sengendo and Nambi (1997) and Daileader Ruland et al., 2005.

[62] The term "employability" relates to portable competencies and qualifications that enhance an individual's capacity to make use of the education and training opportunities available in order to secure and retain decent work, progress within the enterprise and between jobs and cope with changing technology and changing market conditions. See ILO, 2004a.

[63] In many African countries free education programmes may be limited to primary education and provide only basic skills.

[64] See Figures 3.4 and 3.5 in UNAIDS, 2006b:64-65. Original source is from the HIV/AIDS Indicator Surveys conducted by Demographic and Health Surveys in 2000-2004 (see Demographic and Health Surveys, multiple years).

[65] See ILO, 2006d.

[66] Unemployment was similarly reported higher for young women than young men in Namibia in 1997 (41 vs. 33 per cent). At regional level, unemployment is estimated to be lower for young women than young men for Sub-Saharan Africa as a whole in 1994 and 2004 (18.8 vs. 20.7 and 18.6 vs. 20.7 respectively). Many young women are not counted in unemployment statistics because they have far lower labour force participation rates when conventionally measured and are not seeking work; most unemployed young women work otherwise in uncounted forms of work. Lower education, less access and low status restrict young women's employment options to unpaid household work in many settings (UNECA, 2005). It is reported that in Zambia, for example, 39 per cent of young women in urban areas and 20 per cent in rural areas work at home.

[67] See BIDPA, 2005 and ILO/SRO, 2005.

[68] See ILO, 2003a.

[69] The following data are indicative of other youth unemployment rates estimated at national level in recent years.

Endnotes table 2: Youth unemployment rates, selected countries, recent years

	Country and year	Youth unemployment rate			Proportion youth unemployed of total unemployed (per cent)		
		Total	Men	Women	Total	Men	Women
Sub-Saharan Africa	Botswana 2000	–	–	–	61.8	58.3	65.5
	Ethiopia 1999	–	–	–	84.4	79.1	91.2
	Namibia 1997	37.0	32.9	41.4	33.4	40.9	–
	South Africa 2000	44.2	42.1	46.7	32.3	34.5	30.3
Latin America and the Caribbean	Brazil 2001	17.9	14.6	22.4	48.6	49.9	47.4
	Barbados 2001	23.2	20.8	26.2	36.9	42.4	32.9
	Colombia 2000	36.3	31.9	40.7	40.5	41.4	39.9
	Jamaica 1999	34.0	23.9	46.2	52.5	58.0	49.6
	Paraguay 2001	13.8	11.7	17.3	51.0	51.3	50.6
	Trinidad and Tobago 1999	25.4	21.9	30.9	42.8	44.1	41.6
Asia	China 2000	3.1	...	...	...	...	...
	Thailand 2000	6.6	7.0	6.0	49.7	52.3	46.4
	India 1997	–	–	–	52.9	52.9	52.9
Middle East – North Africa	Morocco 1999*	15.4	15.8	14.6	38.2	39.0	36.3
Transition economies	Bulgaria 2001	38.4	42.0	34.5	21.3	22.0	20.4
	Estonia 2001	20.5	22.2	19.1	21.3	20.6	22.1
	Latvia 2001	20.7	20.2	21.4	18.1	17.5	18.9
	Russian Federation 2002**	17.2	...	...	...	...	...
	Slovenia 2001	16.2	15.3	17.8	30.9	31.0	30.8
	Ukraine 2002**	19.7	–	–	–	–	–
Industrialized countries	United States 2002	12.0	12.8	11.1	32.0	32.5	31.5
	Italy 2002	26.3	22.6	31.4	28.5	30.2	27.0

* Source: ILO, 2003b. ** Source: UNICEF, 2005c.
Source: ILO, 2003a.

[70] See: ILO, 2005a.

[71] See ILO, 2004a.

[72] See ILO, 2004a.

[73] See general endnote 54.

[74] See ILO/IPEC GOU (Uganda), 2004.

[75] See FAO, 2005.

[76] See Figure 3.6 in UNAIDS, 2006b:66. Original source is from the HIV/AIDS Indicator Surveys conducted by Demographic and Health Surveys in 2000-2004 (see Demographic and Health Surveys, multiple years).

[77] See Brown et al., 2005.

[78] See Dupas, 2005.

[79] See Burns et al., 2004.

[80] Central and Eastern European Harm Reduction Network and OSI, 2005.

[81] See UNAIDS, 2006a.

[82] See ILO, 2004b.

[83] The effects of work combined with school attendance on adolescents are less clear, as working may in fact

enable them to finance a future education that would otherwise be unaffordable. Youth in post-obligatory schooling who are working may be responding to other motivations.

[84] See Ilahi et al., 2005.

[85] See IPEC, 2006a.

[86] See general endnote 54.

[87] See general endnote 48.

[88] See ILO, 2006e:59.

[89] The MDGs are listed and discussed in Chapter 5.

[90] See ILO, 2005c:§6, 16 and 48.

Legal endnotes (legal references may be additional to bibliography)

[91] The Minimum Age (Industry) Convention (No.5), 1919 and the Night Work of Young Persons (Industry) Convention (No.6), 1919.

[92] The Minimum Age (Industry) Convention (No.5), 1919; Minimum Age (Sea) Convention (No.7), 1920; Minimum Age (Agriculture) Convention (No. 10), 1921; Minimum Age (Trimmers and Stokers) Convention (No.15) 1921; Minimum Age (Non-Industrial Employment) Convention (No.33), 1932; Minimum Age (Sea) Convention (No.58) (Revised), 1936; Minimum Age (Industry) Convention (No. 59) (Revised), 1937; Minimum Age (Non-Industrial Employment) Convention (No. 60) (Revised), 1937; Minimum Age (Fishermen) Convention (No.112), 1959; Minimum Age (Underground Work) Convention (No. 123), 1965; and the Minimum Age Convention (No. 138), 1973.

[93] The Minimum Age Convention (No. 138), 1973

[94] Pakistan ratified the Convention most recently, in July 2006.

[95] ***General minimum age*** According to Article 2, paragraph 1 of Convention 138, each State member ratifying the Convention shall specify, in a declaration appended to its ratification, a minimum age for admission to employment or work within its territory and on means of transport registered in its territory. Subject to Articles 4 to 8 of the Convention, no-one under that age shall be admitted to employment or work in any occupation. According to Article 1, paragraph 3 of the Convention, the minimum age specified in pursuance of paragraph 1 of this Article shall not be less than the age of completion of compulsory schooling and, in any case, shall not be less than 15 years.

Although the general age limit upholds the standard of 15 years, it allows countries whose economy and educational facilities are insufficiently developed to set a limit of 14 years, following consultations with employers' and workers' organizations. The minimum age specified at the time of ratification may subsequently be raised by notification to the Director General of the ILO (Article 2, paragraph 2).

Hazardous work The minimum age limit for employment in work which by its nature or the circumstances in which it is carried out is likely to jeopardize the health, safety or morals of young persons was set at 18 years. Article 3, paragraph 2 of the Convention provides that these types of work must be defined by national laws or regulations, or by the competent authorities after consultations with employers' and workers' organizations.

As the Convention refers to work ***likely*** to jeopardize the health, safety or morals of young persons, and not only to work which is recognized to have that effect, it is necessary to examine both the nature of the work and the circumstances in which it is carried out. Certain types of activities which would not appear in themselves to be hazardous, may be so in certain circumstances. The Convention leaves it to each individual country to determine which types of work are concerned, but whatever the method chosen, it requires that the determination be made and prior consultation take place with the organizations of employers and workers. The supplementing Recommendation (No. 146) indicates that full account should be taken in the process to determine these types of work of relevant international labour standards, such as those concerning dangerous substances, agents or processes, the lifting of heavy weights, and underground work. It also suggests that the list of hazardous types of work should be re-examined periodically (see paragraph 10). Article 3, paragraph 3 of the Convention allows admission to these types of work from the lower age of 16 years, provided two conditions are met: (a) the health, safety and morals of the young persons concerned are fully protected, and (b) they have received adequate specific instruction or vocational training in the relevant branch of activity. In fact, authorization for persons 16 years and over to perform work which might be classified as hazardous must be subject to strict conditions designed to reduce, if not totally eliminate, the dangerous or harmful nature of such work.

Light work Under article 7 of the Convention, the minimum age limit for light work is 13 years, or 12 years in countries with less developed economies and educational systems. Light work is characterized as work which is: (a) not likely to be harmful to the health or development of children; and (b) not such as to prejudice their attendance at school, their participation in vocational orientation or training programmes approved by the competent authority, or their capacity to benefit from the instruction received. National laws or regulations may also permit the employment (or work) of persons who are at least 15 years of age but have not yet completed their compulsory schooling in work which meets the requirements set forth in sub-paragraphs (a) and (b) of paragraph 1 of Article 7 of the Convention. The competent authority shall determine the activities in which employment or work may be permitted under paragraphs 1 and 2 of this Article and shall prescribe the number of hours during which, and the conditions in which such employment or work may be undertaken (Article 7, paragraph 2 of the Convention).

The Convention also provides for exceptions to the prohibition of employment or work in the case of work done by children as part of their education or training, or for such purposes as participation in artistic performances. It sets out the conditions that have to be met in each case. Article 6 of the Convention further pro-

vides that it does not apply to work done by children and youth in schools for general, vocational or technical education. The Convention furthermore provides that the prohibition does not apply to work done by persons at least 14 years of age in enterprises, when such work is carried out in accordance with conditions prescribed by the competent authority after consultation with the organizations of employers and workers concerned, and where the work is an integral part of: (a) a course of education or training for which a school is primarily responsible; (b) a programme of training mainly or entirely in an undertaking, where the programme has been approved by the competent authority; or (c) a programme of guidance or orientation designed to facilitate the choice of occupation or line of training.

[96] Minimum Age Recommendation (No. 146), 1973.

[97] The ILO has an old and respected system to monitor the application of international Conventions that requires regular reporting by States Members on ratified Conventions.

Regular supervision of the application of ILO Conventions is entrusted to the Committee of Experts on the Application of Conventions and Recommendations (CEACR) and subsequently to the Committee on the Application of Standards of the International Labour Conference. The Committee of Experts is made up of 20 persons chosen for their technical expertise, independence, impartiality and objectivity. Drawn from all parts of the world, the Committee's members possess first-hand experience of different legal, economic and social systems. The Committee meets annually to examine the reports submitted by governments, and comments on the reports take the form either of observations (published and reported to the Conference) or of direct requests (directly addressed to governments). The Application of Standards Committee is set up by the Conference each year. It is tripartite, consisting of representatives of governments, employers and workers; it reviews the observations made by the CEACR and hears the views of governments and the social partners. It makes tripartite recommendations to the Conference on action to be taken.

[98] In the ILO legal instruments, child labour refers to work that

1. is mentally, physically, socially or morally dangerous and harmful to children;
2. interferes with children's schooling by depriving them of the opportunity to attend school, by obliging them to leave school prematurely, or by requiring them to attempt to combine school attendance with excessively long hours and heavy work.

[99] Worst Forms of Child Labour Convention (No. 182), 1999. Article 1 provides that the basic obligation of a ratifying State Member is to take immediate and effective measures to ensure the prohibition and the elimination of the worst forms of child labour as a matter of urgency.

[100] Worst Forms of Child Labour Convention Recommendation (No. 190), 1999.

[101] The UN Convention on the Rights of the Child (CRC) was adopted by the United Nations General Assembly on 20 November 1989 and entered into force in September 1990. By 2000, ten years after its adoption, almost every country in the world had signed and agreed to be bound by the provisions of the Convention. To date (July 2006), there were 192 States parties and 140 signatories, 2 States being signatories but not ratifying: Somalia and the United States.

[102] See Article 1.

[103] See Article 32, paragraph 1.

[104] See Article 32, paragraph 2 (a).

[105] All States Parties are obliged to submit regular reports to the Committee on how the rights are being implemented. States must report initially two years after acceding to the Convention and then every five years. The Committee examines each report and addresses its concerns and recommendations to the State Party in the form of "concluding observations". The Committee on the Rights of the Child (CRC) also monitors implementation of the two Optional Protocols to the Convention, on involvement of children in armed conflict and on the sale of children, child prostitution and child pornography, and it reviews additional reports which must be submitted by States that have ratified the Optional Protocols. The Committee cannot consider individual complaints, although child rights may be raised before other committees with competence to consider complaints. The Committee meets in Geneva and normally holds three sessions per year consisting of a three-week plenary and a one-week pre-sessional working group (see also notes 43 and 106).

[106] See Article 2, paragraph 3.

[107] See note 83.

[108] See CEACR: General Survey Minimum Age, 1973 (para.140). The CEACR has often recalled in its comments to ratifying States Members that it considers "compulsory schooling is one of the most effective means of combating child labour" (see for example Direct request to Congo, CEACR 2005, 76th Session under the application of Convention No.138; and to Democratic Republic of the Congo). The CEACR has also indicated (Direct request to Lesotho, CEACR 2004, 75th Session) that it considers the requirement of Article 2 (3) of the Convention fulfilled when the minimum age for admission to employment is not less than the age of the completion of compulsory education. When the two ages do not coincide, the CEACR usually requests Government to provide information on the situation of children who are not enrolled in school and not obliged to attend school, and to indicate what measures are taken or envisaged to ensure that these children are not admitted to employment or work in any occupation below the minimum age for admission to work (see, for example, the Direct request to Namibia, CEACR 2005, 76th session under the application of Convention No.138).

[109] See Article 28.

[110] In this respect, it is well to note that the assumption that compulsory schooling is limited in length to the duration of primary education rarely still holds. The majority of countries affected by HIV/AIDS and considered in this report have extended compulsory education beyond the duration of primary schooling.

[111] These include the International Covenant on Economic, Social and Cultural Rights (1966), the Convention on the Rights of the Child (1989), the International Convention on the Elimination of All Forms of Racial Discrimination (1965) and the Convention on the Elimination of All Forms of Discrimination against Women (1979), which impose obligations upon States Parties.

[112] See Articles 13 and 14, especially Article 13, which is the longest provision in the Covenant.

[113] See General Comment No.13, Committee on Economic, Social and Cultural Rights [United Nations, Economic and Social Council, Doc. E/C.12/1999/10, 8 December 1999]. In its comment regarding Article 13, paragraph 2, subparagraph a) regarding the right to primary education, the Committee indicated that it obtained guidance on the proper interpretation of the term *primary education* from the World Declaration on Education for All which states: *the main delivery system for the basic education of children outside the family is primary schooling. Primary education must be universal, ensure that the basic learning needs of all children are satisfied, and take into account the culture, needs and opportunities of the community* (see Article 5).

[114] See Article 13, paragraph 2.

[115] See paragraph 38 (g).

[116] See paragraph 114.

[117] See M. Alender, "Information and education laws", in Dr. Jayasuriya (ed.) *HIV, law, ethics and human rights*, UNDP, New Delhi, 1995, p. 54, and also *Impact of HIV and sexual health education on the sexual behaviour of young people: a review update*, UNAIDS, 1997.

[118] The Council on Human Rights since 2006.

[119] See Resolution 1990/68 *Rights of the child*. The Special Rapporteur was appointed for a period of one year and has been renewed to date.

[120] The Optional Protocol was adopted on 25 May 2000 and entered into force on 18 January 2002. As of 8 May 2006, there were 107 Parties and 114 signatories, and Burkina Faso and Cyprus were the most recent States to have ratified the Protocol (see also notes 43 and 91).

[121] Resolution 2001/51, paragraph 12.

[122] CRC/GC/2003/3, 17 March 2003.

[123] See paragraph 2.

[124] See paragraph 4: §a),b) and d).

[125] See paragraph 6.

[126] See paragraph 15.

[127] See paragraphs 18-19.

[128] See paragraph 36.

[129] CRC/C/80

[130] The Committee stipulated the inclusion, notably, of recommendations adopted by the United Nations General Assembly at it Special Session on Children in 2002, at which the Resolution *A World Fit for Children* was also adopted on 11 October [A/RES/S-27/2].

[131] See paragraph 40: §a) and c).

[132] See Paragraphs 81 and 95. The Guidelines add that the freedom to seek, receive and impart information and ideas of all kinds and the right to education provide children with the right to give and receive all HIV-related information needed to avoid infection and to cope with their status, if they are HIV-positive. The right to special protection and assistance if deprived of his or her family environment, including alternative care and protection in adoption, in particular, protects children if they are orphaned by HIV/AIDS. The right of disabled children to a full and decent life and to special care, and the rights to abolition of traditional practices which are prejudicial to the health of children, such as early marriage, female genital mutilation, and denial of equal sustenance and inheritance for girls are also highly relevant in the context of HIV/AIDS. All these provisions go hand-in-hand with the abolition of child labour in the overarching interest of upholding the rights of children. Furthermore, the right to non-discrimination and privacy for children living with HIV/AIDS and finally the rights of children to be actors in their own development and to express opinions and have them taken into account in making decisions about their lives should empower children to be involved in the design and implementation of HIV-related programmes for children, as well as other fundamental aspects of their lives.

[133] Resolution A/RES/S-26/2, dated 27 June 2001.

[134] See paragraph 4.

[135] See paragraph 63.

Main tables

Main table 1: Basic data on HIV/AIDS, the labour force, population, age groups and dependency, by sex, 60 countries, 2005-2010

Country Alphabetical order by region	HIV/AIDS				Population			
	Estimated HIV prevalence in persons aged 15-49 years (%) 2005	Estimated number of men aged 15 to 64 years in the labour force who were HIV-positive ('000s) 2005	Estimated number of women aged 15 to 64 years in the labour force who were HIV-positive ('000s) 2005	Total estimated number of persons aged 15 to 64 years in the labour force who were HIV-positive ('000s) 2005	Estimated male population ('000s) 2005	Estimated female population ('000s) 2005	Projected male life expectancy at birth (years) 2005-2010	Projected female life expectancy at birth (years) 2005-2010
Sub-Saharan Africa								
Angola	3.7	136	116	251	7,861	8,081	40.48	43.38
Benin	1.8	35	22	57	4,253	4,186	55.07	56.63
Botswana	24.1	84	60	144	867	898	35.04	32.72
Burkina Faso	2.0	60	53	113	6,650	6,578	48.45	50.07
Burundi	3.3	58	62	120	3,684	3,863	44.48	46.54
Cameroon	5.4	197	133	329	8,119	8,203	45.78	46.71
Central African Republic	10.7	99	84	183	1,969	2,069	38.95	40.02
Chad	3.5	65	57	122	4,824	4,925	43.29	45.35
Congo	5.3	45	30	75	1,983	2,016	52.16	54.84
Côte d'Ivoire	7.1	322	137	459	9,230	8,924	45.59	47.01
Democratic Republic of the Congo	3.2	420	297	716	28,542	29,007	43.63	45.76
Djibouti	3.1	6	4	10	397	397	52.85	54.98
Equatorial Guinea	3.2	4	2	6	249	254	41.44	41.57
Eritrea	2.4	24	17	41	2,161	2,241	54.12	57.77
Ethiopia	...	...	...	...	38,514	38,917	47.65	49.42
Gabon	7.9	25	20	45	689	695	53.07	53.59
Gambia	2.4	9	6	15	752	765	56.47	58.98
Ghana	2.3	110	102	213	11,191	10,921	57.59	58.51
Guinea	1.5	34	30	65	4,819	4,584	54.22	54.49
Guinea-Bissau	3.8	14	10	23	784	803	44.25	46.74
Kenya	6.1	509	404	913	17,153	17,103	51.10	49.41
Lesotho	23.2	77	64	140	835	960	34.23	34.34
Liberia	...	...	...	...	1,638	1,645	41.86	43.14
Madagascar	0.5	22	20	42	9,255	9,351	55.00	57.36
Malawi	14.1	399	395	793	6,397	6,487	41.58	40.63
Mali	1.7	48	44	92	6,737	6,782	48.59	49.88
Mozambique	16.1	657	752	1,409	9,580	10,212	41.65	41.90
Namibia	19.6	69	54	123	1,007	1,024	46.60	45.07
Niger	1.1	37	27	64	7,136	6,821	45.39	45.41
Nigeria	3.9	1,156	619	1,775	66,558	64,971	44.05	44.31
Rwanda	3.1	61	64	125	4,380	4,658	43.06	46.05
Sierra Leone	1.6	22	14	35	2,725	2,801	40.51	43.31
South Africa	18.8	2,261	1,412	3,673	23,291	24,141	44.20	43.76
Sudan	1.6	120	40	159	18,235	17,998	55.63	58.21
Swaziland	33.4	67	33	100	498	535	30.79	29.15
Togo	3.2	47	28	75	3,035	3,110	54.05	57.47
Uganda	6.7	394	368	762	14,416	14,400	51.20	53.01
United Republic of Tanzania	6.5	605	595	1,199	19,071	19,258	46.24	46.82
Zambia	17.0	465	344	809	5,843	5,826	39.57	38.56
Zimbabwe	20.1	622	481	1,103	6,453	6,557	38.22	36.33
Asia								
Cambodia	1.6	53	56	110	6,801	7,270	54.57	61.31
China	0.1	342	278	620	675,852	639,992	70.78	74.55
India	0.9	2,751	1,104	3,855	565,778	537,593	63.20	66.71
Myanmar	1.3	180	147	326	25,083	25,436	58.92	64.83
Thailand	1.4	258	225	483	31,543	32,690	68.51	75.00
Latin America and the Caribbean								
Bahamas	3.3	3	3	5	157	166	68.96	75.28
Barbados	1.5	1	1	2	130	139	73.13	79.23
Belize	2.5	2	1	3	136	134	69.50	74.05
Brazil	0.5	272	206	478	91,870	94,535	68.20	75.72
Dominican Republic	1.1	26	15	42	4,490	4,405	65.40	72.27
Guatemala	0.9	24	11	35	6,139	5,688	64.86	72.10
Guyana	2.4	5	3	8	364	387	62.27	68.41
Haiti	3.8	77	57	134	4,202	4,326	52.86	53.99
Honduras	1.5	29	18	46	3,631	3,573	67.19	71.35
Jamaica	1.5	13	8	20	1,310	1,341	69.42	72.73
Suriname	1.9	2	1	3	224	225	67	73.34
Trinidad and Tobago	2.6	10	6	16	644	662	67.67	72.50
Countries in developed regions								
Russian Federation	1.1	402	386	788	66,447	76,754	58.73	71.81
Ukraine	1.4	154	149	303	21,310	25,171	60.68	72.51
United States	0.6	486	421	907	146,680	151,533	75.18	80.58

Age groups and dependency							Country
Estimated number of boys aged 0 to 14 years ('000s) 2005	Estimated number of girls aged 0 to 14 years ('000s) 2005	Estimated number of men aged 15 to 64 years ('000s) 2005	Estimated number of women aged 15 to 64 years ('000s) 2005	Estimated number of men aged 65 years and over ('000s) 2005	Estimated number of women aged 65 years and over ('000s) 2005	Estimated dependency ratio (dependants per 100 non-dependent men and women) 2005	Alphabetical order by region
							Sub-Saharan Africa
3,695	3,712	3,994	4,150	172	219	95.8	**Angola**
1,897	1,833	2,260	2,220	96	133	88.4	**Benin**
335	330	510	532	23	36	69.4	**Botswana**
3,168	3,073	3,321	3,306	162	199	99.6	**Burkina Faso**
1,701	1,696	1,905	2,040	78	127	91.3	**Burundi**
3,384	3,344	4,463	4,530	272	329	81.5	**Cameroon**
864	872	1,037	1,102	69	95	88.8	**Central African Republic**
2,305	2,302	2,387	2,458	131	165	101.2	**Chad**
945	940	988	1,010	51	66	100.2	**Congo**
3,801	3,797	5,125	4,838	305	289	82.2	**Côte d'Ivoire**
13,626	13,579	14,258	14,549	659	879	99.8	**Democratic Republic of the Congo**
166	163	221	221	10	13	79.6	**Djibouti**
112	111	128	132	9	11	93.5	**Equatorial Guinea**
992	977	1,129	1,201	40	62	88.9	**Eritrea**
17,320	17,152	20,157	20,530	1,036	1,234	90.3	**Ethiopia**
280	274	383	387	27	33	79.9	**Gabon**
306	302	420	432	26	31	78.1	**Gambia**
4,410	4,219	6,397	6,277	385	426	74.5	**Ghana**
2,120	1,993	2,544	2,413	155	178	89.7	**Guinea**
377	377	385	399	22	27	102.3	**Guinea-Bissau**
7,378	7,285	9,327	9,299	447	519	83.9	**Kenya**
349	344	447	561	40	55	78.1	**Lesotho**
776	770	830	835	32	41	97.2	**Liberia**
4,103	4,084	4,886	4,951	266	316	89.1	**Madagascar**
3,072	3,028	3,145	3,251	180	208	101.4	**Malawi**
3,321	3,199	3,259	3,375	156	208	103.8	**Mali**
4,369	4,335	4,931	5,497	280	381	89.8	**Mozambique**
425	418	551	567	31	40	81.8	**Namibia**
3,514	3,330	3,500	3,341	123	151	104.0	**Niger**
29,841	28,383	34,909	34,415	1,808	2,174	89.7	**Nigeria**
1,951	1,979	2,333	2,552	95	127	85.0	**Rwanda**
1,181	1,185	1,462	1,513	82	103	85.7	**Sierra Leone**
7,801	7,663	14,704	15,249	786	1,229	58.4	**South Africa**
7,242	6,977	10,392	10,317	601	705	75.0	**Sudan**
212	211	269	304	16	21	80.2	**Swaziland**
1,336	1,337	1,615	1,666	84	108	87.3	**Togo**
7,326	7,214	6,769	6,800	321	386	112.4	**Uganda**
8,208	8,119	10,327	10,436	535	703	84.6	**United Republic of Tanzania**
2,687	2,660	3,000	2,971	156	195	95.4	**Zambia**
2,606	2,595	3,632	3,703	215	259	77.4	**Zimbabwe**
							Asia
2,652	2,565	3,984	4,389	165	317	68.1	**Cambodia**
148,504	133,263	480,965	453,092	46,383	53,637	40.9	**China**
181,867	171,883	356,611	334,842	27,301	30,868	59.6	**India**
7,544	7,351	16,400	16,731	1,140	1,354	52.5	**Myanmar**
7,743	7,551	21,802	22,605	1,998	2,533	44.6	**Thailand**
							Latin America and the Caribbean
47	45	102	109	9	11	52.8	**Bahamas**
26	25	95	97	10	17	40.7	**Barbados**
50	49	80	79	6	6	69.6	**Belize**
26,440	25,483	60,417	62,642	5,013	6,410	51.5	**Brazil**
1,482	1,429	2,827	2,789	180	188	58.4	**Dominican Republic**
2,754	2,435	3,128	3,016	257	237	92.5	**Guatemala**
112	109	237	256	16	23	52.7	**Guyana**
1,624	1,574	2,427	2,562	152	190	70.9	**Haiti**
1,439	1,385	2,065	2,038	128	150	75.6	**Honduras**
423	404	794	829	92	108	63.3	**Jamaica**
70	65	142	144	13	16	57.3	**Suriname**
143	138	458	470	43	53	40.6	**Trinidad and Tobago**
							Countries in developed regions
11,205	10,681	48,875	52,724	6,368	13,349	40.9	**Russian Federation**
3,544	3,362	15,216	16,855	2,551	4,954	44.9	**Ukraine**
31,735	30,213	99,498	100,058	15,447	21,262	49.4	**United States**

Main table 1: Basic data on HIV/AIDS, the labour force, population, age groups and dependency, by sex, 60 countries, 2005-2010
Summary

Region	HIV/AIDS				Population	
	Estimated HIV prevalence in persons aged 15-49 years (%) 2005	Estimated number of men aged 15 to 64 years in labour force who were HIV positive ('000s) 2005	Estimated number of women aged 15 to 64 years in labour force who were HIV positive ('000s) 2005	Total estimated number of persons aged 15 to 64 years in the labour force who were HIV-positive ('000s) 2005	Estimated male population ('000s) 2005	Estimated female population ('000s) 2005
Sub-Saharan Africa (40 countries)	6.4	9,382	6,995	16,377	361,778	362,964
Asia (5 countries)	0.5	3,584	1,810	5,394	1,305,057	1,242,981
Latin America and the Caribbean (12 countries)	0.8	463	329	792	113,297	115,581
Countries in developed regions (3 countries)	0.8	1,043	955	1,998	234,438	253,458
Total (60* countries)	1.4	14,471	10,089	24,561	2,014,570	1,974,983

Note: average life expectancy is not available for groups of selected countries. * Less Ethiopia and Liberia with respect to HIV/AIDS

Age groups and dependency							Region
Estimated number of boys aged 0 to 14 years ('000s) 2005	Estimated number of girls aged 0 to 14 years ('000s) 2005	Estimated number of men aged 15 to 64 years ('000s) 2005	Estimated number of women aged 15 to 64 years ('000s) 2005	Estimated number of men aged 65 years and over ('000s) 2005	Estimated number of women aged 65 years and over ('000s) 2005	Estimated dependency ratio (dependants per 100 non-dependent men and women) 2005	
159,502	156,159	192,298	194,327	9,979	12,477	87.5	**Sub-Saharan Africa (40 countries)**
348,310	322,613	879,761	831,659	76,986	88,709	48.9	**Asia (5 countries)**
34,609	33,141	72,771	75,031	5,917	7,409	54.9	**Latin America and the Caribbean (12 countries)**
46,484	44,256	163,588	169,637	24,366	39,565	46.4	**Countries in developed regions (3 countries)**
588,904	556,170	1,308,418	1,270,653	117,248	148,160	54.7	**Total (60* countries)**

Main table 2: Estimated economic impact of HIV/AIDS: economic growth lost and employment growth forfeited, 43 countries*, 1992-2004; and estimated labour productivity gains attributable to antiretroviral therapy, 54 countries*, 2004

Country	HIV prevalence	GDP		Employment	
Alphabetical order by region	HIV Estimated prevalence in persons aged 15 to 49 years (%) 2005	Real GDP (US$ millions in 2000 constant) 2004**	Estimated average annual rate of growth of GDP loss attributable to HIV/AIDS (%) 1992-2004	Estimated average annual rate of growth of employment loss attributable to HIV/AIDS (%) 1992-2004	Estimated annual average employment forfeited due to HIV/AIDS (absolute numbers) 1992-2004
Sub-Saharan Africa					
Angola	3.7	31,040	0.5	1.9	102,800
Benin	1.8	8,199	0.2	0.3	7,300
Botswana	24.1	16,169	1.9	1.1	5,300
Burkina Faso	2.0	13,773	0.2	0.1	2,900
Burundi	3.3	4,533	0.4	1.8	54,300
Cameroon	5.4	32,038	0.7	0.3	15,000
Central African Republic	10.7	4,009	1.2	0.0	600
Chad	3.5	18,148	0.4	2.0	57,200
Congo	5.3	3,491	0.7	3.0	37,300
Côte d'Ivoire	7.1	25,475	0.9	0.9	46,900
Democratic Republic of Congo	3.2	36,166	0.4	1.8	326,100
Djibouti	3.1	1,427	...	...	...
Equatorial Guinea	3.2	8,661	...	...	...
Eritrea	2.4	3,800	...	...	...
Ethiopia	2.0	48,597	0.2	0.0	8,200
Gabon	7.9	8,293	1.0	0.7	3,000
Gambia	2.4	2,704	0.3	0.4	2,200
Ghana	2.3	44,594	0.2	0.0	1,900
Guinea	1.5	18,437	0.1	0.3	12,700
Guinea-Bissau	3.8	1,022	...	...	...
Kenya	6.1	35,054	0.8	1.4	141,100
Lesotho	23.2	4,328	...	...	...
Madagascar	0.5	14,266	...	...	...
Malawi	14.1	7,488	1.4	0.8	41,300
Mali	1.7	12,035	0.1	0.2	6,400
Mozambique	16.1	22,076	1.5	0.3	22,400
Namibia	19.6	13,699	1.7	0.5	1,900
Niger	1.1	9,665	...	...	...
Nigeria	3.9	136,529	0.5	1.1	361,200
Rwanda	3.1	10,308	0.4	0.8	25,600
Sierra Leone	1.6	2,751	...	...	...
South Africa	18.8	468,121	1.7	0.7	90,200
Sudan	1.6	63,621	0.1	0.3	22,600
Swaziland	33.4	5,803	2.3	1.7	3,900
Togo	3.2	8,453	0.4	0.5	10,100
Uganda	6.7	37,802	0.8	0.3	26,500
United Republic of Tanzania	6.5	23,321	0.8	0.1	8,900
Zambia	17.0	9,950	1.6	0.5	18,800
Zimbabwe	20.1	24,554	1.8	1.4	66,600
Asia					
Cambodia	1.6	30,725	0.1	0.7	36,200
China	0.1	7,023,705	...	...	...
India	0.9	3,115,305	...	...	...
Thailand	1.4	473,561	0.1	0.3	81,600
Latin America and the Caribbean					
Bahamas	3.3	5,086	0.4	0.1	100
Belize	2.5	1,752	0.3	0.0	20
Brazil	0.5	1,385,118	...	...	...
Dominican Republic	1.1	60,028	0.0	0.3	8,000
Guatemala	0.9	48,735	...	...	...
Guyana	2.4	3,061	0.3	0.7	2,000
Haiti	3.8	14,413	0.5	2.3	63,600
Honduras	1.5	18,633	0.1	0.4	8,100
Jamaica	1.5	10,119	0.1	0.5	4,600
Trinidad and Tobago	2.6	14,569	0.3	0.2	800
Countries in developed regions					
Russian Federation	1.1	1,309,123	<0.1***	<0.1***	8,100
Ukraine	1.4	278,851	0.1	1.0	23,100
United States	0.6	10,708,050	...	...	...

... no information due to lack of data availability or data reliability, or lack of a measurable effect.

* Liberia entirely excluded from Sub-Saharan Africa; Barbados and Suriname from Latin America and the Caribbean; and Myanmar from Asia for lack of data availability or reliability. Djibouti, Equatorial Guinea, Eritrea, Guinea-Bissau, Lesotho, Madagascar, Niger, Sierra Leone in Sub-Saharan Africa; China and India in Asia; Brazil and Guatemala in Latin America and the Caribbean; and United States in developed regions excluded from the analysis on employment for lack of data, or of a measurable effect, yielding 43 countries. Bahamas and Haiti in Latin America and the Caribbean excluded from the scenario modelling because of lack of data availability or reliability, yielding 54 countries. ** GDP refers to 2001, 2002 and 2003 for Equatorial Guinea, Bahamas and Haiti respectively.
*** Values are about 0.0056 and 0.0089 for GDP growth lost and employment growth forfeited respectively.

GNI	Gains attributable to ARVs in months and $US per worker after 4.5 years									Country
GNI per capita US$ 2004	Labour force participation rates (%) 2005			Estimated productivity gained (average months per worker)			Estimated productivity gained (US$, 2004 base)			
	Scenarios			Scenarios			Scenarios			
	Least favourable	Inter-mediate	Current	Least favourable	Inter-mediate	Most favourable	Least favourable	Inter-mediate	Most favourable	Alphabetical order by region
										Sub-Saharan Africa
161	40.3	60.4	80.6	7	20	39	1,170	3,210	6,220	Angola
90	40.9	61.3	81.8	7	20	39	670	1,830	3,550	Benin
798	35.8	53.7	71.7	6	18	34	5,150	14,160	27,460	Botswana
97	40.7	61.1	81.4	7	20	39	710	1,960	3,810	Burkina Faso
55	43.4	65.1	86.8	8	22	42	430	1,190	2,300	Burundi
176	33.6	50.4	67.3	6	17	32	1,070	2,940	5,700	Cameroon
92	37.7	56.6	75.5	7	19	36	620	1,720	3,330	Central African Republic
111	38.8	58.2	77.7	7	19	37	780	2,140	4,150	Chad
62	34.9	52.3	69.7	6	17	34	390	1,060	2,060	Congo
123	32.9	49.3	65.8	6	16	32	730	2,000	3,880	Côte d'Ivoire
56	30.0	45.0	60.0	5	15	29	300	840	1,620	Democratic Republic of Congo
179	32.6	48.9	65.2	6	16	31	1,050	2,890	5,610	Djibouti
632	33.3	49.9	66.6	6	17	32	3,780	10,410	20,190	Equatorial Guinea
80	40.0	60.0	80.0	7	20	38	580	1,590	3,080	Eritrea
63	43.4	65.1	86.8	8	22	42	490	1,340	2,600	Ethiopia
475	36.6	54.9	73.1	7	18	35	3,130	8,600	16,670	Gabon
157	42.1	63.1	84.2	8	21	40	1,190	3,270	6,350	Gambia
185	40.5	60.8	81.0	7	20	39	1,350	3,710	7,200	Ghana
180	40.8	61.2	81.6	7	20	39	1,320	3,630	7,050	Guinea
58	36.4	54.7	72.9	7	18	35	380	1,040	2,020	Guinea-Bissau
94	40.6	60.8	81.1	7	20	39	690	1,890	3,670	Kenya
271	31.0	46.5	62.1	6	15	30	1,510	4,170	8,080	Lesotho
70	39.4	59.1	78.7	7	20	38	500	1,370	2,650	Madagascar
53	40.9	61.3	81.7	7	20	39	390	1,060	2,060	Malawi
79	39.6	59.3	79.1	7	20	38	570	1,560	3,020	Mali
97	42.8	64.2	85.5	8	21	41	750	2,060	4,000	Mozambique
626	33.5	50.2	66.9	6	17	32	3,770	10,370	20,110	Namibia
65	40.4	60.5	80.7	7	20	39	470	1,290	2,500	Niger
81	33.3	50.0	66.6	6	17	32	480	1,330	2,570	Nigeria
103	43.6	65.4	87.2	8	22	42	810	2,230	4,330	Rwanda
46	24.8	37.2	49.6	5	12	24	200	560	1,080	Sierra Leone
914	31.1	46.7	62.3	6	15	30	5,120	14,080	27,310	South Africa
151	29.1	43.7	58.2	5	14	28	790	2,170	4,220	Sudan
471	29.0	43.5	58.0	5	14	28	2,460	6,760	13,120	Swaziland
126	34.8	52.3	69.7	6	17	33	790	2,170	4,200	Togo
121	42.2	63.3	84.4	8	21	41	920	2,520	4,890	Uganda
56	42.1	63.1	84.2	8	21	40	420	1,170	2,260	United Republic of Tanzania
74	37.2	55.7	74.3	7	18	36	500	1,360	2,650	Zambia
170	36.5	54.7	72.9	7	18	35	1,120	3,070	5,950	Zimbabwe
										Asia
193	39.7	59.6	79.4	7	20	38	1,380	3,790	7,340	Cambodia
490	39.5	59.3	79.0	7	20	38	3,490	9,590	18,600	China
260	29.2	43.8	58.4	5	15	28	1,360	3,750	7,280	India
661	36.0	54.0	72.0	7	18	35	4,290	11,780	22,850	Thailand
										Latin America and the Caribbean
...	...	...	...	...	...	...	...	...	...	Bahamas
546	31.2	46.8	62.3	6	15	30	3,060	8,430	16,340	Belize
661	34.4	51.6	68.8	6	17	33	4,090	11,260	21,840	Brazil
572	33.4	50.0	66.7	6	17	32	3,430	9,440	18,310	Dominican Republic
355	30.3	45.4	60.5	5	15	29	1,930	5,320	10,320	Guatemala
354	29.9	44.8	59.8	5	15	29	1,900	5,230	10,150	Guyana
...	...	...	...	...	...	...	...	...	...	Haiti
230	33.3	49.9	66.5	6	17	32	1,380	3,790	7,350	Honduras
329	33.8	50.8	67.7	6	17	33	2,000	5,510	10,690	Jamaica
953	31.4	47.1	62.8	6	16	30	5,390	14,810	28,730	Trinidad and Tobago
										Countries in developed regions
807	29.5	44.3	59.1	5	15	28	4,290	11,800	22,890	Russian Federation
528	28.4	42.7	56.9	5	14	27	2,700	7,430	14,400	Ukraine
3,319	33.2	49.8	66.4	6	16	32	19,840	54,560	105,820	United States

Main table 2: **Estimated economic impact of HIV/AIDS: economic growth lost and employment growth forfeited, 43 countries*, 1992-2004; and estimated labour productivity gains attributable to antiretroviral therapy, 54 countries*, 2004**
Summary

Region	HIV prevalence	GDP		Employment	
	Estimated HIV prevalence in persons aged 15 to 49 years (%) 2005	Real GDP (US$ millions in 2000 constant) 2004**	Estimated average annual rate of growth of GDP loss attributable to HIV/AIDS (%) 1992-2004	Estimated average annual rate of growth of employment loss attributable to HIV/AIDS (%) 1992-2004	Estimated annual average employment forfeited due to HIV/AIDS (absolute numbers) 1992-2004
Sub-Saharan Africa (31 countries)	6.7	1,240,402	0.7	0.5	1,083,000
Sub-Saharan Africa (39 countries)	6.9				
Asia (2 countries)	1.6	504,286	0.1	0.3	101,000
Asia (4 countries)	0.5				
Latin America and the Caribbean (8 countries)	2.3	127,661	0.3	0.2	85,900
Latin America and the Caribbean (8 countries)	0.8				
Countries in developed regions (2 countries)	1.2	1,587,974	<0.05***	<0.05***	24,300
Countries in developed regions (3 countries)	0.8				
Total (43 countries)	4.7	3,460,322	0.5	0.3	1,294,200
Total (54 countries)	1.6				

* Liberia entirely excluded from Sub-Saharan Africa; Barbados and Suriname from Latin America and the Caribbean; and Myanmar from Asia for lack of data availability or reliability. Djibouti, Equatorial Guinea, Eritrea, Guinea-Bissau, Lesotho, Madagascar, Niger, Sierra Leone in Sub-Saharan Africa; China and India in Asia; Brazil and Guatemala in Latin America and the Caribbean; and United States in developed regions excluded from the analysis on employment for lack of data, or of a measurable effect, yielding 43 countries. Bahamas and Haiti in Latin America and the Caribbean excluded from the scenario modelling because of lack of data availability or reliability, yielding 54 countries. ** GDP refers to 2001, 2002 and 2003 for Equatorial Guinea, Bahamas and Haiti respectively.
*** Values are about 0.0332 and 0.0266 for GDP growth lost and employment forfeited respectively.

GNI	Gains attributable to ARVs in months and $US per worker after 4.5 years									Region
GNI per capita US$ 2004	Labour force participation rates (%) 2005 Scenarios			Estimated productivity gained (average months per worker) Scenarios			Estimated productivity gained (US$, 2004 base) Scenarios			
	Least favourable	Inter-mediate	Current	Least favourable	Inter-mediate	Most favourable	Least favourable	Inter-mediate	Most favourable	
										Sub-Saharan Africa (31 countries)
192	37.1	55.6	74.2	7	18	36	1,280	3,530	6,850	Sub-Saharan Africa (39 countries)
										Asia (2 countries)
392	34.9	52.4	69.9	6	17	34	2,460	6,780	13,140	Asia (4 countries)
										Latin America and the Caribbean (8 countries)
521	32.5	48.7	65.0	6	16	31	3,040	8,370	16,230	Latin America and the Caribbean (8 countries)
										Countries in developed regions (2 countries)
1,551	30.4	45.6	60.8	6	15	29	8,490	23,340	45,260	Countries in developed regions (3 countries)
										Total (43 countries)
351	35.8	53.7	71.6	6	18	34	2,260	6,220	12,070	Total (54 countries)

Main table 3: *Children* **Projected mortality, latest school enrolment, experience of HIV/AIDS and labour of children, and HIV/AIDS prevalence of the parental/guardian generation, boys and girls under 15 years, 60 countries, 2005, 2005-2010, or latest available year**

Country	Mortality		Children and school						Children and HIV/AIDS			
Alphabetical order by region	Projected infant mortality (per 1000 live births) 2005-2010	Projected child mortality (probability of dying before 5th birthday) 2005-2010	Primary education net enrolment rate 2002-2005		Survival rate to grade 5 2002-2005		Lower secondary education gross enrolment ratio (all programmes from 10-13 years) 2002-2005		Estimated number of children aged 0 to 14 years living with HIV 2005	Estimated number of deaths in children aged 0 to 14 years due to AIDS 2005	Estimated total number of currently living orphans as a result of AIDS aged 0 to 17 years 2005	Estimated proportion of all children aged 0 to 17 years who are orphans as a result of HIV/AIDS 2005
	Boys & Girls	Boys & Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys & Girls	Boys & Girls	Boys & Girls	Boys & Girls
Sub-Saharan Africa												
Angola	130	230	...	...	...	...	...	...	35,000	6,800	160,000	1.9
Benin	98	147	93	72	70	69	44	24	9,800	1,940	62,000	1.4
Botswana	43	98	81	83	88	95	84	89	14,000	4,100	120,000	15.0
Burkina Faso	116	186	46	35	74	78	19	14	17,000	6,500	120,000	1.7
Burundi	99	173	60	54	64	62	18	14	20,000	6,400	120,000	3.0
Cameroon	91	156	...	...	64	63	35	28	43,000	9,500	240,000	3.0
Central African Republic	93	167	...	...	...	...	18	10	24,000	5,400	140,000	6.9
Chad	112	195	68	46	51	39	28	9	16,000	4,200	57,000	1.1
Congo	68	102	...	...	65	67	53	47	15,000	2,700	110,000	5.1
Côte d'Ivoire	114	183	62	50	...	...	39	23	74,000	10,500	450,000	5.1
Democratic Republic of the Congo	113	197	...	...	...	...	...	...	120,000	38,700	680,000	2.2
Djibouti	84	125	36	29	90	85	30	21	1,200	230	5,700	1.5
Equatorial Guinea	95	170	92	78	34	31	51	31	<1,000	450	4,600	1.8
Eritrea	57	81	52	44	86	73	75	46	6,600	1,110	36,000	1.6
Ethiopia	91	157	58	55	...	...	53	36	...	36,100	... [2]	...
Gabon	51	88	...	...	68	71	62 1	62 1	3,900	670	20,000	3.1
Gambia	68	111	73	77	...	...	63	56	1,200	300	3,800	0.5
Ghana	56	91	65	65	62	65	68	59	25,000	6,400	170,000	1.7
Guinea	97	147	69	58	87	76	43	21	7,000	3,700	28,000	0.6
Guinea-Bissau	111	194	...	...	...	...	...	...	3,200	640	11,000	1.3
Kenya	63	107	76	77	77	74	89	86	150,000	35,400	1,100,000	6.4
Lesotho	59	113	83	88	58	69	40	51	18,000	3,600	97,000	11.5
Liberia	132	209	...	...	...	...	...	...	...	1,890	...	...
Madagascar	71	118	89	89	56	58	25	25	1,600	3,600	13,000	0.1
Malawi	103	167	93	98	50	38	44	37	91,000	21,300	550,000	7.9
Mali	126	206	50	43	78	70	37	23	16,000	2,400	94,000	1.3
Mozambique	91	163	75	67	53	45	19	13	140,000	21,300	510,000	5.1
Namibia	37	71	71	76	87	90	68	80	17,000	2,600	85,000	8.6
Niger	145	248	46	32	75	72	13	9	8,900	2,400	46,000	0.6
Nigeria	108	189	64	57	33	39	41	33	240,000	71,700	930,000	1.4
Rwanda	112	191	72	75	43	49	19	17	27,000	4,000	210,000	4.5
Sierra Leone	160	278	...	...	...	...	14	14	5,200	630	31,000	1.1
South Africa	39	73	88	89	82	87	92	97	4,500	43,100	23,000	0.6
Sudan	65	107	...	...	92	92	50	44	240,000	7,900	1,200,000	6.5
Swaziland	64	135	76	77	74	80	49	51	15,000	3,100	63,000	12.3
Togo	88	127	85	72	79	73	69	38	9,700	2,400	88,000	2.8
Uganda	77	128	...	...	63	64	21	17	110,000	26,900	1,000,000	6.0
United Republic of Tanzania	104	161	92	91	76	76	...	...	110,000	37,000	1,100,000	5.7
Zambia	88	161	80	80	...	...	43	36	130,000	22,200	710,000	11.4
Zimbabwe	59	113	81	82	68	71	56	53	160,000	26,800	1,100,000	17.6
Asia												
Cambodia	87	125	100	96	58	61	50	37	...	1,430	...	...
China	31	36	...	...	100	100	101	101	...	24,500	...	...
India	60	86	90	84	84 [1]	84 [1]	77	63	...	72,300	...	...
Myanmar	66	98	87	88	68	73	46	45	...	2,800	...	...
Thailand	17	21	...	...	...	...	91	88	16,000	3,300	...	...
Latin America and the Caribbean												
Bahamas	11	14	83	85	...	...	78	88	<500	30	...	...
Barbados	10	11	98	97	95	98	113	113	<100	0	...	...
Belize	29	39	95	96	...	...	96	95	<100	30	...	...
Brazil	24	30	...	...	...	...	123	129	...	2,900	...	...
Dominican Republic	30	43	85	87	54	65	76	85	3,600	600	...	...
Guatemala	30	42	95	91	79	76	58	49	...	1,340	...	...
Guyana	43	59	94	93	64	65	118 [1]	118 [1]	<1,000	190	...	...
Haiti	57	101	...	...	...	...	...	...	17,000	5,100	...	...
Honduras	28	43	90	92	...	...	56	64	2,400	1,200	...	...
Jamaica	14	20	88	89	...	...	90	90	<500	240	...	...
Suriname	22	27	90	96	...	...	74	90	<100	30	...	...
Trinidad and Tobago	...	18	92	92	100 [1]	100 [1]	83	86	<1,000	130	...	...
Countries in developed regions												
Russian Federation	16	21	89	90	...	...	90	91	...	1,390	...	...
Ukraine	15	17	82	82	...	...	94	93	...	1,300	...	...
United States	7	8	93	94	...	...	102	102	...	930	...	...

... no data or no age data [1] Data are for boys & girls only. [2] Range from low to high estimate for Ethiopia is 280 000 - 870 000 (see UNAIDS, 2006b). [3] Children aged 5 to 14 years. [4] Children aged 10 to 14 years

HIV prevalence	Child Labour										Country
Estimated prevalence in persons aged 15 to 49 years (%) 2005	Legal minimum age at work	Total estimated proportion of working children aged 7* to 14 years (%)	Estimated proportion of working children aged 7 to 14 years (%)		Total proportion of all working children who work only (%)	Estimated proportion of all working children who only work (%)		Total proportion of all working children who both work and attend school (%)	Estimated proportion of all working children who both work and attend school (%)		Alphabetical order by region
	Boys & girls	Boys & Girls	Boys	Girls	Boys & Girls	Boys	Girls	Boys & Girls	Boys	Girls	
											Sub-Saharan Africa
3.7	14	5.8	5.5	10.6	86.5	81.4	83.3	13.5	18.6	16.7	Angola
1.8	14	...	...	...	...	...	...	...	...	...	Benin
24.1	14	...	...	...	...	...	...	...	...	...	Botswana
2.0	15	69.0[4]	67.9[4]	80.7[4]	97.8[4]	94.8[4]	98.3[4]	2.2[4]	5.2[4]	1.7[4]	Burkina Faso
3.3	16	39.6	41.1	52.6	63.5	44.6	65.4	36.5	55.4	34.6	Burundi
5.4	14	17.5[4]	15.9[4]	29.7[4]	67.2[4]	45.3[4]	71.3[4]	32.8[4]	54.7[4]	28.7[4]	Cameroon
10.7	14	69.5	69.0	80.7	69.4	48.3	73.4	30.6	51.7	26.6	Central African Republic
3.5	14	72.2	75.6	79.8	59.9	34.0	68.8	40.1	66.0	31.2	Chad
5.3	14	42.5	42.6	56.9	50.8	29.6	55.4	49.2	70.4	44.6	Congo
7.1	14	43.5	43.7	57.7	61.7	39.4	67.3	38.3	60.6	32.7	Côte d'Ivoire
3.2	14	...	...	...	...	...	...	...	...	...	Democratic Republic of the Congo
3.1	16	...	...	...	...	...	...	...	...	...	Djibouti
3.2	14	...	...	...	...	...	...	...	...	...	Equatorial Guinea
2.4	14	...	...	...	...	...	...	...	...	...	Eritrea
...	14	59.8	70.3	62.9	76.3	58.6	81.0	23.7	41.4	19.0	Ethiopia
7.9	16	...	...	...	...	...	...		...	...	Gabon
2.4	14	27.5	27.6	40.3	57.0	33.2	63.1	43.0	66.8	36.9	Gambia
2.3	15	28.5	28.5	28.4	36.4	36.3	36.5	63.6	63.7	63.5	Ghana
1.5	16	51.1	50.0	66.2	99.2	98.3	99.4	0.8	1.7	0.6	Guinea
3.8	14	69.9	69.8	80.6	76.5	59.8	78.6	23.5	40.2	21.4	Guinea-Bissau
6.1	16	6.7	6.9	6.4	44.8	43.5	46.9	55.2	56.5	53.1	Kenya
23.2	15	33.3	36.8	43.2	28.3	23.6	16.5	71.7	76.4	83.5	Lesotho
...	16	...	...	...	...	...	...	...	...	...	Liberia
0.5	15	27.9	28.4	40.2	91.4	86.6	89.8	8.6	13.4	10.2	Madagascar
14.1	14	23.3[3]	25.4[3]	21.3[3]	20.1[3]	20.0[3]	20.2[3]	79.9[3]	80.0[3]	79.8[3]	Malawi
1.7	15	27.5	34.8	31.4	80.3	66.3	82.3	19.7	33.7	17.7	Mali
16.1	15	...	...	...	...	...	...	...	...	...	Mozambique
19.6	14	15.4	16.2	14.7	9.5	12.3	6.4	90.5	87.7	93.6	Namibia
1.1	14	...	...	...	...	...	...	...	...	...	Niger
3.9	15	...	...	...	...	...	...	...	...	...	Nigeria
3.1	14	35.7	38.8	46.5	41.3	25.5	42.5	58.7	74.5	57.5	Rwanda
1.6	15	76.1	74.7	84.2	68.4	51.3	69.4	31.6	48.7	30.6	Sierra Leone
18.8	15	27.7	29.0	26.4	5.1	4.7	5.5	94.9	95.3	94.5	South Africa
1.6	14	20.9	23.4	28.7	70.2	52.1	73.2	29.8	47.9	26.8	Sudan
33.4	15	12.3	12.6	19.6	23.2	14.0	22.2	76.8	86.0	77.8	Swaziland
3.2	14	74.7	75.6	83.4	42.4	22.6	47.8	57.6	77.4	52.2	Togo
6.7	14	14.5	16.5	20.3	29.3	19.8	25.5	70.7	80.2	74.5	Uganda
6.5	14	40.4	41.5	39.2	40.0	42.7	37.1	60.0	57.3	62.9	United Republic of Tanzania
17.0	15	14.4	15.0	13.9	72.8	74.8	70.7	27.2	25.2	29.3	Zambia
20.1	14	...	...	...	...	...	...	...	...	...	Zimbabwe
											Asia
1.6	14	52.3	52.4	52.3	16.5	15.5	17.4	83.5	84.5	82.6	Cambodia
0.1	16	...	...	...	...			...			China
0.9	14	5.8	5.9	9.7	94.2	89.9	93.8	5.8	10.1	6.2	India
1.3	15	...	...	...	...	...	...	...	...	...	Myanmar
1.4	15	...	...	...	...	...	...	...	...	...	Thailand
											Latin America and the Caribbean
3.3	14	...	...	...	...	...	...	...	...	...	Bahamas
1.5	15	...	...	...	...	...	...	...	...	...	Barbados
2.5	14	5.6[3]	7.5[3]	3.7[3]	18.2[3]	17.4[3]	19.8[3]	81.8[3]	82.6[3]	80.2[3]	Belize
0.5	16	6.8[3]	9.1[3]	4.5[3]	8.9[3]	9.0[3]	8.7[3]	91.1[3]	91.0[3]	91.3[3]	Brazil
1.1	14	13.8[3]	18.3[3]	15.0[3]	12.6[3]	7.8[3]	8.3[3]	87.4[3]	92.2[3]	95.1[3]	Dominican Republic
0.9	14	20.1	25.9	13.9	38.5	36.7	42.1	61.5	63.3	57.9	Guatemala
2.4	15	32.0	34.7	42.5	7.9	5.6	5.7	92.1	94.4	96.7	Guyana
3.8	15	...	...	...	...	...	...	...	...	...	Haiti
1.5	14	11.4	16.5	6.1	41.9	46.3	29.5	58.1	53.7	70.5	Honduras
1.5	15	...	...	...	...	...	...	...	...	...	Jamaica
1.9	14	...	...	...	...	...	...	...	...	...	Suriname
2.6	16	4.3	5.8	5.4	21.5	21.2	0.0	87.2	78.8	100.0	Trinidad and Tobago
											Countries in developed regions
1.1	16	...	...	...	...	...	...	...	...	...	Russian Federation
1.4	16	2.4[3]	3.0[3]	1.7[3]	1.8[3]	2.2[3]	1.5[3]	98.2[3]	97.8[3]	98.5[3]	Ukraine
0.6	16	...	...	...	...	...	...	...	...	...	United States

Main table 4: Estimated impact of HIV/AIDS, demographic aspects, legal ages, labour force participation and education & training, young men and women 15 to 24 years, 60 countries, latest available year

Youth

Country	HIV prevalence				Demographic aspects			Legal ages at status changes				
Alphabetical order by region	Estimated HIV prevalence in persons aged 15 to 49 years (%) 2005	Estimated HIV prevalence in young men aged 15 to 24 years (%) 2005	Estimated HIV prevalence in young women aged 15 to 24 years (%) 2005	Estimated HIV prevalence in young pregnant women aged 15 to 24 years in capital city (%) 2005	Estimated number of men aged 15 to 24 years 2005	Estimated number of women aged 15 to 24 years 2005	Average age at marriage (singulate mean age)	Age at end of compulsory schooling	Age of sexual consent		Minimum age at marriage	
	Men & Women	Young men	Young women	Young women	Young men	Young women	Young women	Young men & women	Young men	Young women	Young men	Young women
Sub-Saharan Africa												
Angola	3.7	0.9	2.5	2.8	1,598	1,618	...	14	17	16	18	18
Benin	1.8	0.4	1.1	...	881	852	19.9	12	...	...	18	16
Botswana	24.1	5.7	15.3	33.5	217	214	26.9	...	14	16	16	14
Burkina Faso	2.0	0.5	1.4	1.8	1,376	1,346	18.9	16	...	...	20	19
Burundi	3.3	0.8	2.3	8.6	848	855	22.5	12	...	...	18	18
Cameroon	5.4	1.4	4.9	...	1,757	1,745	20.2	na	...	...	18	15
Central African Republic	10.7	2.5	7.3	...	420	430	19.7	14	...	...	18	18
Chad	3.5	0.9	2.2	3.6	949	957	18.1	15	...	...	18	15
Congo	5.3	1.2	3.7	...	395	396	...	16	...	...	...	...
Côte d'Ivoire	7.1	1.7	5.1	...	1,993	1,990	22.0	...	...	...	18	18
Democratic Republic of the Congo	3.2	0.8	2.2	...	5,741	5,741	...	15	...	...	14	15
Djibouti	3.1	0.7	2.1	...	81	80	...	...	...	...	...	...
Equatorial Guinea	3.2	0.7	2.3	...	49	49	...	12	...	...	...	...
Eritrea	2.4	0.6	1.6	...	451	456	19.6	nc	...	...	18	18
Ethiopia	...	...	...	11.5	7,825	7,818	20.5	nc	15	15	18	15
Gabon	7.9	1.8	5.4	...	143	142	22.1	16	...	...	18	15
Gambia	2.4	0.6	1.7	...	143	144	19.6	nc	...	...	...	...
Ghana	2.3	0.2	1.3	...	2,405	2,322	21.2	15	16	16	18	18
Guinea	1.5	0.5	1.4	...	924	869	18.7	16	...	...	18	17
Guinea-Bissau	3.8	0.9	2.5	4.4	148	150	...	...	18	18	18	18
Kenya	6.1	1.0	5.2	...	3,931	3,916	21.7	14	12	14	18	16
Lesotho	23.2	5.9	14.1	27.3	226	235	21.3	...	...	...	21	21
Liberia	...	...	...	...	334	329	20.2	16	16	16	21	18
Madagascar	0.5	0.6	0.3	...	1,814	1,813	20.6	16	...	...	18	18
Malawi	14.1	3.4	9.6	...	1,274	1,279	18.9	nc	12	13	18	18
Mali	1.7	0.4	1.2	...	1,393	1,353	18.4	15	...	...	18	15
Mozambique	16.1	3.6	10.7	...	2,004	2,011	18.0	nc	...	...	18	18
Namibia	19.6	4.4	13.4	7.5	216	213	26.4	16	...	16	...	...
Niger	1.1	0.2	0.8	...	1,394	1,307	17.6	16	...	...	16	14
Nigeria	3.9	0.9	2.7	...	13,915	13,400	21.4	15	...	...	...	...
Rwanda	3.1	0.8	1.9	...	1,060	1,091	22.7	13	...	...	21	21
Sierra Leone	1.6	0.4	1.1	...	523	526	19.8	15	...	14	18	18
South Africa	18.8	4.5	14.8	25.2	4,844	4,780	27.9	15	...	...	14	12
Sudan	1.6	...	...	37.3	3,691	3,581	22.7	na	...	...	15	13
Swaziland	33.4	7.7	22.7	9.3	135	136	26.0	...	16	16	18	16
Togo	3.2	0.8	2.2	5.2	634	638	21.3	15	...	...	20	17
Uganda	6.7	2.3	5.0	...	2,941	2,924	19.6	...	...	18	16	18
United Republic of Tanzania	6.5	2.8	3.8	...	4,126	4,110	20.5	13	12	14	18	15
Zambia	17.0	3.8	12.7	20.7	1,285	1,280	20.6	nc	...	16	21	21
Zimbabwe	20.1	4.4	14.7	18.6	1,641	1,645	21.1	...	16	16	18	16
Asia												
Cambodia	1.6	...	...	...	1,716	1,689	22.5	15	...	...	20	18
China	0.1	...	...	...	113,557	103,792	23.3	15	...	...	...	...
India	0.9	...	...	...	109,176	102,078	19.9	14	...	...	21	18
Myanmar	1.3	...	...	...	5,005	4,929	24.5	...	...	...	...	...
Thailand	1.4	...	...	...	5,483	5,411	23.5	16	...	...	17	17
Latin America and the Caribbean			...									
Bahamas	3.3	...	...	...	28	29	27.2	16	...	...	...	...
Barbados	1.5	...	...	...	21	20	31.8	16	...	...	16	16
Belize	2.5	...	...	...	29	28	26.2	14	...	16	18	18
Brazil	0.5	...	...	...	17,869	17,473	23.4	14	...	...	16	16
Dominican Republic	1.1	...	...	3.7	933	903	21.3	...	...	...	...	...
Guatemala	0.9	...	...	...	1,253	1,299	20.5	15	...	...	16	14
Guyana	2.4	...	...	...	73	72	27.8	15	...	13	16	16
Haiti	3.8	...	...	...	1,011	996	22.3	...	...	...	18	18
Honduras	1.5	...	...	...	769	744	20.4	13	...	...	18	16
Jamaica	1.5	...	...	...	252	251	33.2	14	16	16	18	18
Suriname	1.9	...	...	...	45	44	...	12	...	13	18	15
Trinidad and Tobago	2.6	...	...	...	136	134	26.8	12	16	16	14	12
Countries in developed regions			...									
Russian Federation	1.1	...	...	...	12,306	11,997	21.8	15	...	...	16	16
Ukraine	1.4	...	...	...	3,703	3,628	21.7	15	...	...	18	17
United States	0.6	...	...	...	21,721	20,737	26.3	16 [2]	16-18 [3]	...	...	...

[1] Data are for young men & women only. [2] in most States. [3] depending on the State. ... no minimum age ... no information na not applicable nc schooling is not compulsory

Youth work & labour force participation					Education and training						Country
Legal minimum age at work	Proportion of youth aged 15 to 19 years who are economically active (participation rate %) 2005		Proportion of youth aged 20 to 24 years who are economically active (participation rate %) 2005		Youth literacy rate		Enrolment in upper secondary schools (programmes up to 17-19 years)				
							Gross enrolment ratio (all programmes)		Estimated gross enrolment ratio in technical and other vocational programmes	Estimated gross enrolment ratio in programmes other than technical and vocational	Alphabetical order by region
Young men & women	Young men	Young women	Young men	Young women	Young men	Young women	Young men	Young women	Young men & women	Young men & women	
											Sub-Saharan Africa
14	83.1	70.1	89.8	75.3	84	63	...	...	...	...	Angola
14	63.9	43.3	83.4	51.8	59	33	20	9	4	10	Benin
14	16.4	15.8	65.6	51.3	92	96	57	58	12	46	Botswana
15	77.3	71.1	86.3	75.7	38	25	7	4	2	4	Burkina Faso
16	79.5	83.9	94.6	94.1	77	70	8	6	2	5	Burundi
14	40.8	34.2	84.7	53.8	...	...	...	...	...	...	Cameroon
14	67.4	60.8	89.3	65.9	70	47	...	...	...	...	Central African Republic
14	46.0	53.5	64.7	62.5	56	23	...	...	...	...	Chad
14	57.6	46.7	83.1	49.0	...	...	25	17	10	11	Congo
14	59.9	32.5	94.2	39.2	71	52	...	...	...	...	Côte d'Ivoire
14	72.4	55.6	93.0	69.0	78	63	...	...	...	...	Democratic Republic of the Congo
16	48.7	34.4	85.1	54.8	...	...	18	12	3	12	Djibouti
14	82.8	47.8	95.7	49.9	95	95	17	8	1	13	Equatorial Guinea
14	68.2	50.4	93.5	66.0	...	...	26	13	0	19	Eritrea
14	73.7	68.0	91.4	77.1	...	...	20	11	2	14	Ethiopia
16	50.1	48.9	86.6	61.2	...	...	...	...	6	26	Gabon
14	59.5	48.8	86.7	57.6	...	...	39	28	1	32	Gambia
15	34.6	35.5	68.8	67.5	76	55	25	20	1	22	Ghana
16	70.3	69.3	86.4	78.9	59	34	22	9	2	14	Guinea
14	78.5	61.8	92.4	66.8	...	...	...	...	...	...	Guinea-Bissau
16	67.1	56.8	93.9	66.3	80	81	30	27	1	28	Kenya
15	34.5	25.1	81.5	47.7	...	...	21	25	1	23	Lesotho
16	49.0	47.4	83.6	56.1	...	...	...	...	...	...	Liberia
15	58.0	61.6	81.1	75.5	73	68	...	...	...	...	Madagascar
14	71.0	76.4	90.7	84.9	82	71	18	13	...	...	Malawi
15	69.0	65.7	80.6	70.9	32	17	18	10	6	8	Mali
15	43.1	62.2	84.1	85.1	...	...	3	3	1	3	Mozambique
14	19.7	18.3	55.4	45.9	91	93	30	30	...	...	Namibia
14	88.9	66.2	94.8	71.0	52	23	4	2	0	3	Niger
15	62.3	32.3	82.0	38.3	...	...	35	28	...	...	Nigeria
14	60.3	61.5	87.7	80.1	79	77	11	10	6	4	Rwanda
15	77.7	57.4	97.4	65.0	59	37	13	14	6	8	Sierra Leone
15	35.3	32.7	80.1	51.5	93	94	84	91	9	79	South Africa
14	30.5	15.8	63.7	22.0	85	71	23	23	1	22	Sudan
15	29.7	19.5	87.3	37.6	87	90	30	28	...	...	Swaziland
14	68.3	44.6	94.4	50.5	84	64	27	8	4	13	Togo
14	73.2	70.3	85.6	75.4	83	71	11	7	2	7	Uganda
14	70.5	71.8	92.3	91.2	81	76	...	...	...	...	United Republic of Tanzania
15	74.6	65.7	94.1	75.7	73	66	18	13	1	15	Zambia
14	55.7	35.4	89.7	62.0	...	...	29	25	...	...	Zimbabwe
											Asia
14	41.0	59.2	85.4	81.1	88	79	20	11	1	14	Cambodia
16	49.3	56.4	89.8	85.9	99	99	45	45	17	28	China
14	43.3	22.4	82.5	30.7	84	68	44	33	...	...	India
15	54.4	52.6	87.6	59.9	96	93	31	32	...	...	Myanmar
15	33.5	19.8	77.5	64.4	98	98	64	67	19	46	Thailand
											Latin America and the Caribbean
14	37.5	28.6	70.4	78.5	...	...	75	80	...	...	Bahamas
15	38.4	25.9	90.1	86.9	...	...	104	107	...	...	Barbados
14	45.1	21.4	88.3	51.8	...	...	57	69	10	53	Belize
16	52.9	39.5	86.4	65.4	96	98	81	97	5	85	Brazil
14	43.8	21.9	84.1	52.3	93	95	54	71	4	58	Dominican Republic
14	57.6	31.2	88.0	35.2	86	78	41	42	37	4	Guatemala
15	51.9	22.9	88.6	46.3	...	...	49[1]	49[1]	3	47	Guyana
15	51.3	39.4	82.1	62.6	...	...	...	...	...	...	Haiti
14	70.7	35.9	92.1	56.6	87	91	63	87	35	41	Honduras
15	15.5	12.3	77.9	60.0	...	...	72	76	...	...	Jamaica
14	19.8	4.7	61.3	23.7	96	94	41	72	32	25	Suriname
16	33.7	19.8	89.1	64.9	...	...	79	87	2	81	Trinidad and Tobago
											Countries in developed regions
16	16.5	11.3	67.7	57.7	100	100	100	97	29	70	Russian Federation
16	12.9	11.4	72.4	58.2	100	100	94	89	21	71	Ukraine
16	46.1	46.8	80.1	72.9	...	...	87	87	...	...	United States

5A

Main table 5A: Estimated and projected impact of HIV/AIDS on the labour force due to Stages III and IV of AIDS, both sexes, 60 countries, 2005 and 2010

Country	HIV prevalence	Impact of HIV/AIDS on the labour force					
		2005			2010		
Alphabetical order by region	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Estimated number of persons partially unable to work in Stage III	Estimated number of persons fully unable to work in Stage IV	Estimated total number of persons unable to work in Stages III & IV	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV
Sub-Saharan Africa							
Angola	3.7	18,500	6,200	24,600	22,600	7,500	30,100
Benin	1.8	6,900	2,300	9,300	7,000	2,300	9,300
Botswana	24.1	23,100	7,700	30,800	26,200	8,700	34,900
Burkina Faso	2.0	18,700	6,200	25,000	20,500	6,800	27,300
Burundi	3.3	14,900	5,000	19,800	14,400	4,800	19,200
Cameroon	5.4	41,000	13,700	54,600	45,600	15,200	60,800
Central African Republic	10.7	20,500	6,800	27,400	22,100	7,400	29,400
Chad	3.5	14,600	4,900	19,500	17,500	5,800	23,300
Congo	5.3	7,900	2,600	10,600	8,200	2,700	10,900
Côte d'Ivoire	7.1	47,600	15,900	63,500	54,100	18,000	72,100
Democratic Republic of the Congo	3.2	85,200	28,400	113,500	87,900	29,300	117,300
Djibouti	3.1	650	220	870	880	290	1,170
Equatorial Guinea	3.2	1,400	500	1,900	2,200	700	3,000
Eritrea	2.4	4,300	1,400	5,700	4,700	1,600	6,300
Ethiopia	...	105,300	35,100	140,400	139,100	46,400	185,500
Gabon	7.9	3,100	1,000	4,100	4,600	1,500	6,100
Gambia	2.4	670	220	890	720	240	960
Ghana	2.3	25,800	8,600	34,400	29,900	10,000	39,800
Guinea	1.5	8,300	2,800	11,100	13,600	4,500	18,200
Guinea-Bissau	3.8	1,500	500	2,000	2,200	700	2,900
Kenya	6.1	130,300	43,400	173,800	105,100	35,000	140,100
Lesotho	23.2	17,600	5,900	23,400	20,500	6,800	27,400
Liberia	...	5,100	1,700	6,800	7,300	2,400	9,800
Madagascar	0.5	6,700	2,200	8,900	13,500	4,500	18,000
Malawi	14.1	70,600	23,500	94,100	73,100	24,400	97,500
Mali	1.7	8,400	2,800	11,200	10,500	3,500	14,000
Mozambique	16.1	72,100	24,000	96,200	93,600	31,200	124,800
Namibia	19.6	11,400	3,800	15,200	14,700	4,900	19,600
Niger	1.1	4,200	1,400	5,600	7,700	2,600	10,200
Nigeria	3.9	246,000	82,000	327,900	280,700	93,600	374,200
Rwanda	3.1	14,300	4,800	19,100	15,600	5,200	20,800
Sierra Leone	1.6	4,200	1,400	5,600	4,600	1,500	6,100
South Africa	18.8	301,000	100,300	401,400	443,100	147,700	590,800
Sudan	1.6	21,700	7,200	29,000	38,400	12,800	51,200
Swaziland	33.4	12,600	4,200	16,800	15,400	5,100	20,500
Togo	3.2	9,800	3,300	13,100	10,100	3,400	13,400
Uganda	6.7	62,600	20,900	83,500	35,400	11,800	47,200
United Republic of Tanzania	6.5	134,700	44,900	179,500	140,400	46,800	187,200
Zambia	17.0	68,000	22,700	90,600	67,700	22,600	90,300
Zimbabwe	20.1	123,800	41,300	165,100	127,100	42,400	169,500
Asia							
Cambodia	1.6	16,100	5,400	21,400	16,000	5,300	21,300
China	0.1	32,600	10,900	43,400	49,500	16,500	66,000
India	0.9	406,000	135,300	541,300	525,700	175,200	701,000
Myanmar	1.3	21,400	7,100	28,600	31,400	10,500	41,900
Thailand	1.4	18,700	6,200	24,900	12,500	4,200	16,700
Latin America and the Caribbean							
Bahamas	3.3	480	160	630	360	120	490
Barbados	1.5	200	70	270	130	40	180
Belize	2.5	140	50	190	220	70	290
Brazil	0.5	18,400	6,100	24,600	13,100	4,400	17,400
Dominican Republic	1.1	7,200	2,400	9,600	7,000	2,300	9,300
Guatemala	0.9	4,700	1,600	6,300	4,800	1,600	6,400
Guyana	2.4	1,000	300	1,400	900	300	1,200
Haiti	3.8	18,900	6,300	25,100	19,600	6,500	26,100
Honduras	1.5	5,000	1,700	6,700	4,500	1,500	5,900
Jamaica	1.5	1,900	600	2,500	2,000	700	2,700
Suriname	1.9	260	90	350	240	80	320
Trinidad and Tobago	2.6	1,800	600	2,400	2,100	700	2,700
Countries in developed regions							
Russian Federation	1.1	39,300	13,100	52,400	115,800	38,600	154,400
Ukraine	1.4	27,100	9,000	36,100	40,400	13,500	53,900
United States	0.6	13,000	4,300	17,300	11,500	3,800	15,300

Main table 5A: **Estimated and projected impact of HIV/AIDS on the labour force due to Stages III and IV of AIDS, both sexes, 60 countries, 2005 and 2010**
Summary

Region	HIV prevalence	Impact of HIV/AIDS on the labour force					
		2005			2010		
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Estimated number of persons partially unable to work in Stage III	Estimated number of persons fully unable to work in Stage IV	Estimated total number of persons unable to work in Stages III & IV	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV
Sub-Saharan Africa (40 countries)	6.4	1,775,000	591,700	2,366,700	2,048,100	682,700	2,730,800
Asia (5 countries)	0.5	494,800	164,900	659,600	635,100	211,700	846,900
Latin America and the Caribbean (12 countries)	0.8	60,000	20,000	80,000	54,700	18,200	72,900
Countries in developed regions (3 countries)	0.8	79,400	26,400	105,800	167,700	55,900	223,600
Total (60* countries)	1.4	2,409,200	803,000	3,212,100	2,905,600	968,500	3,874,200

* Less Ethiopia and Liberia with respect to HIV/AIDS

Main table 5B: Projected impact of HIV/AIDS on the labour force due to Stages III and IV of AIDS, both sexes, 60 countries, 2015 and 2020

Country	HIV prevalence	Impact of HIV/AIDS on the labour force					
		2015			2020		
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV
Sub-Saharan Africa							
Angola	3.7	25,200	8,400	33,600	27,100	9,000	36,100
Benin	1.8	6,600	2,200	8,800	6,700	2,200	9,000
Botswana	24.1	25,500	8,500	34,100	22,000	7,300	29,400
Burkina Faso	2.0	22,200	7,400	29,600	23,700	7,900	31,600
Burundi	3.3	18,700	6,200	25,000	20,500	6,800	27,400
Cameroon	5.4	45,700	15,200	60,900	46,900	15,600	62,500
Central African Republic	10.7	22,100	7,400	29,400	22,400	7,500	29,800
Chad	3.5	18,500	6,200	24,700	19,600	6,500	26,100
Congo	5.3	8,500	2,800	11,300	9,400	3,100	12,500
Côte d'Ivoire	7.1	58,600	19,500	78,100	60,000	20,000	80,100
Democratic Republic of the Congo	3.2	97,100	32,400	129,500	109,200	36,400	145,600
Djibouti	3.1	920	310	1,230	890	300	1,180
Equatorial Guinea	3.2	2,900	1,000	3,800	3,300	1,100	4,500
Eritrea	2.4	5,000	1,700	6,700	5,600	1,900	7,500
Ethiopia	...	171,100	57,000	228,100	190,400	63,500	253,900
Gabon	7.9	5,900	2,000	7,900	6,700	2,200	9,000
Gambia	2.4	610	200	810	560	190	740
Ghana	2.3	30,700	10,200	40,900	31,100	10,400	41,400
Guinea	1.5	18,000	6,000	24,000	21,300	7,100	28,300
Guinea-Bissau	3.8	2,200	700	3,000	2,200	700	2,900
Kenya	6.1	71,200	23,700	94,900	46,800	15,600	62,400
Lesotho	23.2	19,300	6,400	25,700	18,500	6,200	24,700
Liberia	...	9,200	3,100	12,200	9,900	3,300	13,200
Madagascar	0.5	19,400	6,500	25,900	22,400	7,500	29,800
Malawi	14.1	74,000	24,700	98,700	78,600	26,200	104,800
Mali	1.7	11,300	3,800	15,100	12,200	4,100	16,300
Mozambique	16.1	96,700	32,200	128,900	98,100	32,700	130,800
Namibia	19.6	14,900	5,000	19,900	14,800	4,900	19,800
Niger	1.1	11,000	3,700	14,600	13,100	4,400	17,400
Nigeria	3.9	300,600	100,200	400,800	341,900	114,000	455,900
Rwanda	3.1	17,500	5,800	23,400	18,100	6,000	24,200
Sierra Leone	1.6	4,500	1,500	6,000	4,800	1,600	6,500
South Africa	18.8	435,800	145,300	581,100	387,700	129,200	516,900
Sudan	1.6	51,000	17,000	67,900	56,200	18,700	74,900
Swaziland	33.4	14,800	4,900	19,700	13,700	4,600	18,200
Togo	3.2	10,200	3,400	13,600	10,900	3,600	14,600
Uganda	6.7	22,900	7,600	30,600	13,800	4,600	18,300
United Republic of Tanzania	6.5	144,000	48,000	192,000	152,400	50,800	203,200
Zambia	17.0	66,600	22,200	88,700	67,300	22,400	89,700
Zimbabwe	20.1	125,700	41,900	167,500	126,200	42,100	168,200
Asia							
Cambodia	1.6	16,000	5,300	21,300	16,600	5,500	22,100
China	0.1	90,400	30,100	120,500	129,500	43,200	172,700
India	0.9	540,900	180,300	721,300	522,600	174,200	696,800
Myanmar	1.3	31,100	10,400	41,400	27,600	9,200	36,700
Thailand	1.4	9,600	3,200	12,800	5,700	1,900	7,600
Latin America and the Caribbean							
Bahamas	3.3	270	90	360	220	70	290
Barbados	1.5	100	30	140	70	20	90
Belize	2.5	330	110	440	370	120	490
Brazil	0.5	16,300	5,400	21,800	14,300	4,800	19,100
Dominican Republic	1.1	5,800	1,900	7,800	5,100	1,700	6,800
Guatemala	0.9	4,700	1,600	6,300	3,900	1,300	5,200
Guyana	2.4	830	280	1,110	760	250	1,010
Haiti	3.8	19,400	6,500	25,900	18,800	6,300	25,100
Honduras	1.5	4,500	1,500	6,000	4,800	1,600	6,400
Jamaica	1.5	1,600	500	2,200	1,200	400	1,600
Suriname	1.9	200	70	270	130	40	180
Trinidad and Tobago	2.6	2,000	700	2,700	1,800	600	2,400
Countries in developed regions							
Russian Federation	1.1	160,400	53,500	213,800	149,100	49,700	198,900
Ukraine	1.4	41,000	13,700	54,600	33,600	11,200	44,700
United States	0.6	10,200	3,400	13,600	6,900	2,300	9,200

Main table 5B. Projected impact of HIV/AIDS on the labour force due to Stages III and IV of AIDS, 2015 and 2020
Summary

Region	HIV prevalence	Impact of HIV/AIDS on the labour force					
		2015			2020		
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV	Projected number of persons partially unable to work in Stage III	Projected number of persons fully unable to work in Stage IV	Projected total number of persons unable to work in Stages III & IV
Sub-Saharan Africa (40 countries)	6.4	2,106,600	702,200	2,808,800	2,136,800	712,300	2,849,100
Asia (5 countries)	0.5	688,000	229,300	917,300	702,000	234,000	935,900
Latin America and the Caribbean (12 countries)	0.8	56,200	18,700	74,900	51,400	17,200	68,600
Countries in developed regions (3 countries)	0.8	211,600	70,600	282,000	189,600	63,200	252,800
Total (60 countries)	1.4	3,062,400	1,020,800	4,083,000	3,079,800	1,026,700	4,106,400

Main table 6: Estimated and projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, by sex, 60 countries, 2005-2020

Country	HIV prevalence	Cumulative mortality losses to the male, female and total labour force to years 2005 and 2010							
		To 2005				To 2010			
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years (%) 2005	Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)
Sub-Saharan Africa									
Angola	3.7	123,200	98,300	221,500	3.05	191,300	169,900	361,200	4.24
Benin	1.8	38,700	26,900	65,600	1.95	59,600	43,500	103,100	2.59
Botswana	24.1	94,800	61,400	156,200	20.24	161,700	116,200	277,900	31.38
Burkina Faso	2.0	181,900	176,000	357,900	5.78	255,100	258,300	513,400	7.01
Burundi	3.3	138,800	147,800	286,600	6.96	198,400	224,100	422,500	8.22
Cameroon	5.4	209,700	149,900	359,600	5.40	329,600	254,100	583,700	7.68
Central African Republic	10.7	122,300	104,700	227,000	11.05	186,400	174,500	360,900	15.31
Chad	3.5	86,300	73,600	159,900	4.18	132,300	125,600	257,900	5.87
Congo	5.3	72,100	49,100	121,200	7.44	99,600	72,800	172,400	9.09
Côte d'Ivoire	7.1	360,600	156,800	517,400	7.08	526,000	244,500	770,500	9.20
Democratic Republic of the Congo	3.2	648,700	497,100	1,145,800	4.76	936,000	748,100	1,684,100	5.95
Djibouti	3.1	3,200	2,400	5,600	1.75	5,500	4,500	10,000	2.76
Equatorial Guinea	3.2	7,500	4,500	12,000	5.73	14,000	9,600	23,600	9.73
Eritrea	2.4	29,600	19,400	49,000	2.67	44,400	31,300	75,700	3.46
Ethiopia	...	649,400	547,100	1,196,500	3.37	1,066,700	962,500	2,029,200	4.91
Gabon	7.9	16,800	13,100	29,900	4.78	29,900	25,700	55,600	7.63
Gambia	2.4	3,700	2,800	6,500	0.98	6,000	4,900	10,900	1.43
Ghana	2.3	148,100	149,200	297,300	2.94	229,500	249,300	478,800	4.12
Guinea	1.5	48,000	45,800	93,800	2.08	87,800	92,100	179,900	3.51
Guinea-Bissau	3.8	8,200	5,100	13,300	2.05	14,500	10,500	25,000	3.31
Kenya	6.1	678,300	753,500	1,431,800	8.46	948,300	1,136,300	2,084,600	10.54
Lesotho	23.2	73,500	50,800	124,300	16.40	120,900	96,100	217,000	25.60
Liberia	...	31,700	16,600	48,300	3.88	51,900	32,800	84,700	5.88
Madagascar	0.5	35,800	30,600	66,400	0.77	78,600	76,700	155,300	1.53
Malawi	14.1	419,800	426,800	846,600	12.49	639,100	712,400	1,351,500	16.79
Mali	1.7	54,200	52,500	106,700	1.92	80,400	88,200	168,600	2.63
Mozambique	16.1	337,500	365,800	703,300	7.04	579,700	713,100	1,292,800	11.26
Namibia	19.6	45,700	31,700	77,400	10.68	80,900	64,600	145,500	17.19
Niger	1.1	22,300	17,800	40,100	0.67	45,700	39,900	85,600	1.20
Nigeria	3.9	1,386,300	864,500	2,250,800	4.49	2,180,900	1,491,100	3,672,000	6.35
Rwanda	3.1	192,400	173,300	365,700	8.04	240,300	234,300	474,600	8.99
Sierra Leone	1.6	29,200	16,400	45,600	1.90	40,800	25,200	66,000	2.46
South Africa	18.8	1,352,800	751,400	2,104,200	9.61	2,545,400	1,609,800	4,155,200	17.37
Sudan	1.6	103,800	32,600	136,400	1.28	207,500	73,000	280,500	2.31
Swaziland	33.4	55,900	25,900	81,800	21.00	93,500	46,700	140,200	30.58
Togo	3.2	57,100	27,700	84,800	3.39	87,800	48,200	136,000	4.62
Uganda	6.7	733,700	753,100	1,486,800	11.14	897,500	961,200	1,858,700	11.69
United Republic of Tanzania	6.5	840,700	899,200	1,739,900	8.25	1,268,000	1,435,300	2,703,300	11.09
Zambia	17.0	471,500	387,900	859,400	14.79	689,400	576,500	1,265,900	18.72
Zimbabwe	20.1	731,300	640,600	1,371,900	19.23	1,100,200	1,042,700	2,142,900	25.73
Asia									
Cambodia	1.6	132,700	32,100	164,800	2.36	205,200	56,800	262,000	3.24
China	0.1	616,300	213,100	829,400	0.11	1,357,900	418,800	1,776,700	0.22
India	0.9	3,589,300	549,400	4,138,700	0.93	6,033,300	984,500	7,017,800	1.44
Myanmar	1.3	175,700	50,100	225,800	0.82	319,500	97,500	417,000	1.37
Thailand	1.4	627,600	164,900	792,500	2.17	798,400	239,400	1,037,800	2.68
Latin America and the Caribbean									
Bahamas	3.3	4,200	2,900	7,100	4.37	5,100	3,800	8,900	4.99
Barbados	1.5	2,000	330	2,330	1.51	2,600	520	3,120	1.90
Belize	2.5	1,000	150	1,150	1.09	1,900	470	2,370	1.83
Brazil	0.5	327,300	97,900	425,200	0.46	410,700	144,300	555,000	0.56
Dominican Republic	1.1	64,300	10,600	74,900	1.91	94,000	18,800	112,800	2.53
Guatemala	0.9	39,400	10,400	49,800	1.21	55,800	17,300	73,100	1.52
Guyana	2.4	9,200	5,500	14,700	4.28	11,500	7,100	18,600	5.18
Haiti	3.8	198,700	126,100	324,800	8.14	261,100	182,100	443,200	9.64
Honduras	1.5	37,200	24,200	61,400	1.92	52,400	38,900	91,300	2.35
Jamaica	1.5	8,600	6,100	14,700	1.25	13,900	10,700	24,600	2.01
Suriname	1.9	2,700	400	3,100	1.98	3,500	680	4,180	2.50
Trinidad and Tobago	2.6	12,500	4,000	16,500	2.57	18,600	7,700	26,300	3.90
Countries in developed regions									
Russian Federation	1.1	198,000	66,800	264,800	0.36	652,400	264,600	917,000	1.24
Ukraine	1.4	152,600	53,300	205,900	0.93	291,900	117,400	409,300	1.89
United States	0.6	606,900	105,200	712,100	0.45	689,300	144,400	833,700	0.51

Cumulative mortality losses to the male, female and total labour force to years 2015 and 2020								Country
To 2015				To 2020				
Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)	Alphabetical order by region
								Sub-Saharan Africa
272,900	258,200	531,100	5.36	372,500	363,700	736,200	6.40	Angola
83,700	61,700	145,400	3.11	113,000	83,300	196,300	3.58	Benin
224,200	167,800	392,000	39.12	283,000	215,300	498,300	44.51	Botswana
343,400	360,300	703,700	8.14	446,900	479,700	926,600	9.08	Burkina Faso
277,700	321,700	599,400	10.13	376,200	440,900	817,100	11.95	Burundi
458,000	364,700	822,700	9.48	607,800	488,300	1,096,100	11.14	Cameroon
259,500	253,200	512,700	18.96	344,300	341,200	685,500	22.24	Central African Republic
185,900	188,200	374,100	7.33	250,200	264,900	515,100	8.57	Chad
134,900	102,400	237,300	10.43	179,000	138,100	317,100	11.61	Congo
721,600	348,400	1,070,000	11.12	941,200	462,500	1,403,700	12.80	Côte d'Ivoire
1,286,000	1,045,200	2,331,200	7.02	1,742,100	1,414,500	3,156,600	8.03	Democratic Republic of the Congo
8,300	6,700	15,000	3.66	11,600	9,300	20,900	4.44	Djibouti
22,700	16,800	39,500	14.03	34,000	26,300	60,300	18.28	Equatorial Guinea
62,500	45,800	108,300	4.21	85,600	64,000	149,600	4.94	Eritrea
1,610,900	1,515,300	3,126,200	6.52	2,262,800	2,185,400	4,448,200	8.06	Ethiopia
47,200	42,900	90,100	10.74	67,900	63,600	131,500	13.80	Gabon
8,300	6,900	15,200	1.73	10,900	9,000	19,900	1.99	Gambia
320,600	359,800	680,400	5.13	424,900	484,200	909,100	6.05	Ghana
143,500	160,000	303,500	5.08	214,200	246,900	461,100	6.61	Guinea
21,700	16,800	38,500	4.33	30,500	24,200	54,700	5.18	Guinea-Bissau
1,216,300	1,467,500	2,683,800	11.70	1,517,600	1,775,100	3,292,700	12.35	Kenya
166,000	140,400	306,400	32.58	216,600	188,000	404,600	39.07	Lesotho
76,700	55,800	132,500	7.95	103,400	83,700	187,100	9.69	Liberia
138,300	145,600	283,900	2.38	211,800	230,900	442,700	3.18	Madagascar
908,900	1,060,700	1,969,600	20.36	1,240,900	1,477,500	2,718,400	23.59	Malawi
113,400	132,000	245,400	3.24	155,100	184,700	339,800	3.78	Mali
850,900	1,101,200	1,952,100	14.70	1,180,600	1,544,200	2,724,800	17.75	Mozambique
114,600	97,300	211,900	21.26	150,600	130,700	281,300	24.38	Namibia
82,400	75,500	157,900	1.84	129,400	121,500	250,900	2.43	Niger
3,112,200	2,202,900	5,315,100	7.96	4,237,000	3,013,700	7,250,700	9.44	Nigeria
300,200	312,500	612,700	10.01	374,100	403,700	777,800	11.23	Rwanda
55,800	36,400	92,200	3.02	73,400	49,700	123,100	3.53	Sierra Leone
3,637,000	2,418,400	6,055,400	23.32	4,643,600	3,127,500	7,771,100	27.77	South Africa
341,000	128,400	469,400	3.42	489,200	192,800	682,000	4.43	Sudan
130,600	66,700	197,300	37.38	172,300	87,500	259,800	43.59	Swaziland
122,500	73,400	195,900	5.67	164,700	103,600	268,300	6.65	Togo
1,077,400	1,180,500	2,257,900	11.77	1,269,600	1,404,400	2,674,000	11.48	Uganda
1,780,700	2,060,700	3,841,400	13.59	2,384,600	2,786,700	5,171,300	15.89	United Republic of Tanzania
950,900	793,800	1,744,700	22.09	1,263,300	1,044,600	2,307,900	25.05	Zambia
1,507,400	1,475,400	2,982,800	31.20	1,957,100	1,947,300	3,904,400	36.20	Zimbabwe
								Asia
272,400	87,100	359,500	3.95	337,800	125,100	462,900	4.56	Cambodia
2,725,300	790,300	3,515,600	0.42	4,673,200	1,388,900	6,062,100	0.74	China
8,333,300	1,515,100	9,848,400	1.85	10,365,400	2,104,900	12,470,300	2.17	India
452,600	152,500	605,100	1.84	565,200	210,100	775,300	2.21	Myanmar
900,800	304,000	1,204,800	2.99	928,200	348,900	1,277,100	3.11	Thailand
								Latin America and the Caribbean
5,600	4,300	9,900	5.25	6,100	4,800	10,900	5.41	Bahamas
2,700	720	3,420	2.14	2,700	820	3,520	2.25	Barbados
3,200	980	4,180	2.77	4,600	1,600	6,200	3.63	Belize
505,900	211,100	717,000	0.68	586,400	271,100	857,500	0.78	Brazil
116,500	27,400	143,900	2.91	133,600	36,400	170,000	3.16	Dominican Republic
73,000	25,300	98,300	1.76	89,500	33,600	123,100	1.90	Guatemala
13,800	8,600	22,400	6.00	15,700	9,800	25,500	6.73	Guyana
330,900	248,000	578,900	11.07	408,100	318,600	726,700	12.40	Haiti
70,200	55,500	125,700	2.76	90,400	74,000	164,400	3.17	Honduras
18,200	14,500	32,700	2.53	21,500	17,100	38,600	2.89	Jamaica
3,900	880	4,780	2.75	3,800	1,000	4,800	2.71	Suriname
23,700	11,400	35,100	5.17	27,700	14,700	42,400	6.36	Trinidad and Tobago
								Countries in developed regions
1,172,100	563,500	1,735,600	2.42	1,557,500	845,800	2,403,300	3.54	Russian Federation
397,100	179,800	576,900	2.78	457,000	229,000	686,000	3.56	Ukraine
758,700	192,100	950,800	0.56	789,900	232,300	1,022,200	0.59	United States

Main table 6: **Estimated and projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, by sex, 2005-2020**
Summary

Region	HIV prevalence	Cumulative mortality losses to the male, female and total labour force to years 2005 and 2010							
		To 2005				To 2010			
	Estimated prevalence in persons 15 to 49 years (%) 2005	Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)
Sub-Saharan Africa (40 countries)	6.4	10,645,100	8,649,700	19,294,800	6.06	16,551,100	14,326,100	30,877,200	8.37
Asia (5 countries)	0.5	5,141,600	1,009,600	6,151,200	0.47	8,714,300	1,797,000	10,511,300	0.76
Latin America and the Caribbean (12 countries)	0.8	707,100	288,600	995,700	0.91	931,100	432,400	1,363,500	1.14
Countries in developed regions (3 countries)	0.8	957,500	225,300	1,182,800	0.47	1,633,600	526,400	2,160,000	0.83
Total (60 countries)	1.4	17,451,300	10,173,200	27,624,500	1.40	19,115,808	15,284,910	44,912,000	2.11

Cumulative mortality losses to the male, female and total labour force to years 2015 and 2020								Region
To 2015				To 2020				
Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)	
23,176,700	20,667,900	43,844,600	10.27	30,733,500	27,703,100	58,436,600	11.85	**Sub-Saharan Africa (40 countries)**
12,684,400	2,849,000	15,533,400	1.08	16,869,800	4,177,900	21,047,700	1.42	**Asia (5 countries)**
1,167,600	608,700	1,776,300	1.39	1,390,100	783,500	2,173,600	1.59	**Latin America and the Caribbean (12 countries)**
2,327,900	935,400	3,263,300	1.24	2,804,400	1,307,100	4,111,500	1.57	**Countries in developed regions (3 countries)**
39,356,600	25,061,000	64,417,600	2.85	51,797,800	33,971,600	85,769,400	3.61	**Total (60 countries)**

Main table 7: Estimated and projected direct mortality impact of HIV/AIDS on working-age persons, by sex, 60 countries, years 2005, 2010, 2015 and 2020

Country	HIV prevalence	Mortality impact of HIV/AIDS on men and women of working age (15 to 64 years)					
		2005			2010		
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years (%) 2005	Estimated annual deaths due to HIV/AIDS			Projected annual deaths due to HIV/AIDS		
		Men	Women	Total	Men	Women	Total
Sub-Saharan Africa							
Angola	3.7	11,600	13,000	24,600	13,300	16,700	30,000
Benin	1.8	4,100	5,200	9,300	4,000	5,300	9,300
Botswana	24.1	14,900	15,800	30,700	15,200	19,700	34,900
Burkina Faso	2.0	10,800	14,200	25,000	12,100	15,200	27,300
Burundi	3.3	8,300	11,500	19,800	7,900	11,300	19,200
Cameroon	5.4	24,700	29,900	54,600	26,200	34,600	60,800
Central African Republic	10.7	12,100	15,300	27,400	12,600	16,800	29,400
Chad	3.5	8,600	10,900	19,500	10,100	13,200	23,300
Congo	5.3	4,700	5,900	10,600	4,800	6,100	10,900
Côte d'Ivoire	7.1	29,700	33,700	63,400	32,600	39,500	72,100
Democratic Republic of the Congo	3.2	50,200	63,300	113,500	50,900	66,300	117,200
Djibouti	3.1	380	490	870	500	680	1,180
Equatorial Guinea	3.2	830	1,000	1,830	1,300	1,700	3,000
Eritrea	2.4	2,600	3,100	5,700	2,800	3,500	6,300
Ethiopia	...	63,800	76,700	140,500	82,100	103,400	185,500
Gabon	7.9	1,900	2,200	4,100	2,700	3,500	6,200
Gambia	2.4	400	490	890	400	560	960
Ghana	2.3	15,300	19,100	34,400	17,200	22,600	39,800
Guinea	1.5	5,100	5,900	11,000	8,200	10,000	18,200
Guinea-Bissau	3.8	1,000	1,100	2,100	1,300	1,600	2,900
Kenya	6.1	66,000	107,800	173,800	49,100	91,000	140,100
Lesotho	23.2	10,600	12,800	23,400	11,000	16,300	27,300
Liberia	...	3,400	3,400	6,800	4,400	5,400	9,800
Madagascar	0.5	4,400	4,500	8,900	8,200	9,800	18,000
Malawi	14.1	41,700	52,400	94,100	42,000	55,500	97,500
Mali	1.7	4,800	6,400	11,200	5,900	8,000	13,900
Mozambique	16.1	42,000	54,200	96,200	50,700	74,100	124,800
Namibia	19.6	7,500	7,700	15,200	8,700	10,900	19,600
Niger	1.1	2,600	3,000	5,600	4,600	5,600	10,200
Nigeria	3.9	145,400	182,500	327,900	161,000	213,200	374,200
Rwanda	3.1	9,100	10,000	19,100	9,200	11,600	20,800
Sierra Leone	1.6	2,600	3,000	5,600	2,700	3,400	6,100
South Africa	18.8	197,900	203,500	401,400	261,200	329,500	590,700
Sudan	1.6	13,900	15,100	29,000	22,900	28,300	51,200
Swaziland	33.4	7,500	9,300	16,800	8,400	12,100	20,500
Togo	3.2	6,500	6,600	13,100	6,200	7,200	13,400
Uganda	6.7	36,300	47,100	83,400	20,100	27,100	47,200
United Republic of Tanzania	6.5	79,200	100,400	179,600	81,400	105,800	187,200
Zambia	17.0	39,200	51,500	90,700	39,100	51,100	90,200
Zimbabwe	20.1	73,900	91,200	165,100	73,200	96,300	169,500
Asia							
Cambodia	1.6	16,500	4,900	21,400	15,600	5,700	21,300
China	0.1	121,100	23,600	144,700	169,700	50,300	220,000
India	0.9	418,300	123,000	541,300	515,500	185,500	701,000
Myanmar	1.3	21,900	6,700	28,600	30,200	11,700	41,900
Thailand	1.4	62,200	20,800	83,000	39,200	16,300	55,500
Latin America and the Caribbean							
Bahamas	3.3	310	320	630	220	260	480
Barbados	1.5	210	60	270	130	50	180
Belize	2.5	140	50	190	180	100	280
Brazil	0.5	16,500	8,100	24,600	11,200	6,200	17,400
Dominican Republic	1.1	7,400	2,300	9,700	6,800	2,500	9,300
Guatemala	0.9	3,600	2,700	6,300	3,300	3,000	6,300
Guyana	2.4	650	700	1,350	550	600	1,150
Haiti	3.8	11,300	13,800	25,100	11,100	15,000	26,100
Honduras	1.5	3,100	3,600	6,700	2,700	3,300	6,000
Jamaica	1.5	1,300	1,200	2,500	1,200	1,400	2,600
Suriname	1.9	260	90	350	220	100	320
Trinidad and Tobago	2.6	1,500	940	2,440	1,400	1,300	2,700
Countries in developed regions							
Russian Federation	1.1	37,600	14,800	52,400	105,400	48,900	154,300
Ukraine	1.4	25,400	10,800	36,200	35,900	18,000	53,900
United States	0.6	31,600	26,200	57,800	31,100	20,100	51,200

Mortality impact of HIV/AIDS on men and women of working age (15 to 64 years)						Country
2015			2020			
Projected annual deaths due to HIV/AIDS			Projected annual deaths due to HIV/AIDS			Alphabetical order by region
Men	Women	Total	Men	Women	Total	
						Sub-Saharan Africa
14,500	19,100	33,600	15,400	20,700	36,100	**Angola**
3,900	4,900	8,800	3,900	5,000	8,900	**Benin**
14,500	19,500	34,000	12,700	16,700	29,400	**Botswana**
12,800	16,900	29,700	13,500	18,000	31,500	**Burkina Faso**
10,600	14,400	25,000	11,700	15,700	27,400	**Burundi**
26,200	34,700	60,900	26,800	35,700	62,500	**Cameroon**
12,600	16,800	29,400	12,900	16,900	29,800	**Central African Republic**
10,700	14,000	24,700	11,200	14,900	26,100	**Chad**
4,900	6,500	11,400	5,400	7,100	12,500	**Congo**
34,200	43,900	78,100	34,500	45,600	80,100	**Côte d'Ivoire**
56,100	73,500	129,600	63,200	82,400	145,600	**Democratic Republic of the Congo**
530	700	1,230	490	690	1,180	**Djibouti**
1,600	2,200	3,800	1,900	2,600	4,500	**Equatorial Guinea**
2,900	3,800	6,700	3,200	4,200	7,400	**Eritrea**
99,000	129,200	228,200	108,800	145,100	253,900	**Ethiopia**
3,400	4,500	7,900	3,800	5,200	9,000	**Gabon**
340	470	810	320	430	750	**Gambia**
17,600	23,300	40,900	17,700	23,800	41,500	**Ghana**
10,500	13,500	24,000	12,200	16,100	28,300	**Guinea**
1,300	1,700	3,000	1,200	1,700	2,900	**Guinea-Bissau**
32,000	62,900	94,900	20,100	42,300	62,400	**Kenya**
10,000	15,700	25,700	9,500	15,100	24,600	**Lesotho**
5,300	7,000	12,300	5,600	7,600	13,200	**Liberia**
11,300	14,600	25,900	12,800	17,100	29,900	**Madagascar**
42,500	56,200	98,700	45,400	59,400	104,800	**Malawi**
6,400	8,700	15,100	6,900	9,300	16,200	**Mali**
52,500	76,400	128,900	54,800	76,000	130,800	**Mozambique**
8,500	11,300	19,800	8,500	11,200	19,700	**Namibia**
6,400	8,200	14,600	7,500	9,900	17,400	**Niger**
167,900	221,600	389,500	176,500	233,300	409,800	**Nigeria**
10,000	13,400	23,400	10,100	14,000	24,100	**Rwanda**
2,600	3,400	6,000	2,700	3,700	6,400	**Sierra Leone**
249,400	331,700	581,100	226,500	290,400	516,900	**South Africa**
29,300	38,600	67,900	31,900	43,000	74,900	**Sudan**
8,000	11,700	19,700	7,500	10,700	18,200	**Swaziland**
6,000	7,700	13,700	6,200	8,300	14,500	**Togo**
12,600	18,000	30,600	7,800	10,500	18,300	**Uganda**
83,300	108,700	192,000	88,000	115,200	203,200	**United Republic of Tanzania**
38,400	50,400	88,800	39,000	50,700	89,700	**Zambia**
71,800	95,800	167,600	72,200	96,000	168,200	**Zimbabwe**
						Asia
14,900	6,400	21,300	14,500	7,600	22,100	**Cambodia**
306,000	95,900	401,900	426,500	149,100	575,600	**China**
500,200	221,100	721,300	454,200	242,700	696,900	**India**
28,300	13,100	41,400	23,700	13,000	36,700	**Myanmar**
27,900	14,700	42,600	14,800	10,400	25,200	**Thailand**
						Latin America and the Caribbean
150	200	350	120	170	290	**Bahamas**
70	60	130	50	50	100	**Barbados**
280	160	440	300	190	490	**Belize**
13,000	8,800	21,800	11,600	7,400	19,000	**Brazil**
5,600	2,200	7,800	4,700	2,000	6,700	**Dominican Republic**
3,200	3,100	6,300	2,500	2,600	5,100	**Guatemala**
530	600	1,130	500	500	1,000	**Guyana**
10,700	15,200	25,900	10,500	14,600	25,100	**Haiti**
2,700	3,300	6,000	2,800	3,500	6,300	**Honduras**
1,000	1,200	2,200	720	900	1,620	**Jamaica**
180	90	270	90	90	180	**Suriname**
1,300	1,400	2,700	1,100	1,300	2,400	**Trinidad and Tobago**
						Countries in developed regions
134,700	79,100	213,800	118,800	80,000	198,800	**Russian Federation**
34,000	20,700	54,700	26,600	18,200	44,800	**Ukraine**
28,600	16,700	45,300	20,100	10,600	30,700	**United States**

Main table 7: **Estimated and projected direct mortality impact of HIV/AIDS on working-age persons, by sex, 60 countries, years 2005, 2010, 2015 and 2020**
Summary

Region	HIV prevalence	Mortality impact of HIV/AIDS on men and women of working age (15 to 64 years)					
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	2005			2010		
		Estimated annual deaths due to HIV/AIDS			Projected annual deaths due to HIV/AIDS		
		Men	Women	Total	Men	Women	Total
Sub-Saharan Africa (40 countries)	6.4	1,065,510	1,301,180	2,366,690	1,176,200	1,554,440	2,730,640
Asia (5 countries)	0.5	640,000	179,000	819,000	770,200	269,500	1,039,700
Latin America and the Caribbean (12 countries)	0.8	46,270	33,860	80,130	39,000	33,810	72,810
Countries in developed regions (3 countries)	0.8	94,600	51,800	146,400	172,400	87,000	259,400
Total (60 countries)	1.4	1,846,380	1,565,840	3,412,220	2,157,800	1,944,750	4,102,550

Mortality impact of HIV/AIDS on men and women of working age (15 to 64 years)						Region
2015			2020			
Projected annual deaths due to HIV/AIDS			Projected annual deaths due to HIV/AIDS			
Men	Women	Total	Men	Women	Total	
1,192,370	1,605,570	2,797,940	1,200,310	1,602,220	2,802,530	Sub-Saharan Africa (40 countries)
877,300	351,200	1,228,500	933,700	422,800	1,356,500	Asia (5 countries)
38,710	36,310	75,020	34,980	33,300	68,280	Latin America and the Caribbean (12 countries)
197,300	116,500	313,800	165,500	108,800	274,300	Countries in developed regions (3 countries)
2,305,680	2,109,580	4,415,260	2,334,490	2,167,120	4,501,610	Total (60 countries)

Main table 8A: Estimated increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2005

Country	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years 2005	Increase in the estimated economic dependency ratio due to HIV/AIDS (%)	Estimated additional increase in the economic dependency ratio (%)	(%)	Increase in the estimated dependency ratio due to HIV/AIDS (%)	Estimated increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa							
Angola	3.7	1.2	0.2	1.38	0.8	0.3	1.11
Benin	1.8	1.0	0.1	1.16	0.6	0.2	0.75
Botswana	24.1	25.6	2.7	28.97	9.8	2.9	13.01
Burkina Faso	2.0	2.2	0.3	2.45	1.5	0.3	1.84
Burundi	3.3	1.3	0.4	1.74	1.0	0.5	1.44
Cameroon	5.4	4.0	0.5	4.51	2.0	0.6	2.61
Central African Republic	10.7	7.0	1.0	8.05	4.8	1.1	5.98
Chad	3.5	2.7	0.3	2.97	1.4	0.3	1.72
Congo	5.3	4.0	0.4	4.42	2.1	0.5	2.56
Côte d'Ivoire	7.1	5.1	0.5	5.54	2.8	0.6	3.41
Democratic Republic of the Congo	3.2	2.3	0.3	2.54	1.5	0.3	1.88
Djibouti	3.1	0.6	0.2	0.71	0.2	0.2	0.41
Equatorial Guinea	3.2	3.5	0.5	3.98	2.3	0.6	2.97
Eritrea	2.4	1.2	0.2	1.34	0.7	0.2	0.91
Ethiopia	...	1.1	0.3	1.41	0.8	0.3	1.10
Gabon	7.9	3.5	0.4	3.92	2.1	0.5	2.63
Gambia	2.4	0.1	0.1	0.20	0.1	0.1	0.17
Ghana	2.3	1.5	0.2	1.76	0.7	0.3	0.96
Guinea	1.5	0.7	0.2	0.83	0.5	0.2	0.66
Guinea-Bissau	3.8	0.9	0.2	1.05	0.6	0.2	0.81
Kenya	6.1	3.7	0.7	4.51	2.4	0.9	3.28
Lesotho	23.2	18.0	1.9	20.28	7.2	2.2	9.55
Liberia	...	3.0	0.3	3.27	1.7	0.4	2.02
Madagascar	0.5	0.1	0.1	0.15	0.0	0.1	0.01
Malawi	14.1	6.6	1.1	7.72	5.1	1.2	6.38
Mali	1.7	0.9	0.1	0.98	0.6	0.1	0.70
Mozambique	16.1	3.8	0.7	4.55	2.4	0.8	3.22
Namibia	19.6	12.1	1.1	13.32	4.2	1.2	5.48
Niger	1.1	0.2	0.1	0.27	0.2	0.1	0.24
Nigeria	3.9	2.6	0.3	2.99	1.3	0.4	1.77
Rwanda	3.1	3.4	0.3	3.74	2.3	0.4	2.70
Sierra Leone	1.6	1.1	0.1	1.22	0.7	0.1	0.90
South Africa	18.8	9.5	1.2	10.83	4.8	1.5	6.29
Sudan	1.6	0.7	0.1	0.80	0.2	0.1	0.35
Swaziland	33.4	23.1	2.3	25.85	8.0	2.7	10.92
Togo	3.2	2.4	0.3	2.68	1.4	0.4	1.72
Uganda	6.7	5.1	0.4	5.52	3.4	0.5	3.98
United Republic of Tanzania	6.5	3.9	0.7	4.69	3.0	0.8	3.82
Zambia	17.0	6.4	1.1	7.51	4.9	1.3	6.25
Zimbabwe	20.1	15.4	1.9	17.68	8.6	2.1	10.96
Asia							
Cambodia	1.6	2.2	0.2	2.48	1.4	0.2	1.68
China	0.1	0.0	0.0	0.02	0.0	0.0	0.02
India	0.9	0.9	0.1	1.00	0.4	0.1	0.43
Myanmar	1.3	0.6	0.1	0.68	0.4	0.1	0.47
Thailand	1.4	2.2	0.2	2.45	1.4	0.2	1.62
Latin America and the Caribbean							
Bahamas	3.3	4.3	0.3	4.67	2.5	0.3	2.87
Barbados	1.5	1.6	0.2	1.82	1.1	0.2	1.28
Belize	2.5	1.3	0.1	1.41	0.6	0.1	0.69
Brazil	0.5	0.3	0.0	0.28	0.1	0.0	0.16
Dominican Republic	1.1	2.3	0.2	2.50	1.1	0.2	1.29
Guatemala	0.9	1.0	0.1	1.02	0.4	0.1	0.44
Guyana	2.4	3.7	0.3	3.97	2.0	0.3	2.36
Haiti	3.8	4.3	0.4	4.70	2.2	0.5	2.78
Honduras	1.5	1.1	0.1	1.20	0.6	0.2	0.79
Jamaica	1.5	1.2	0.1	1.35	0.6	0.2	0.74
Suriname	1.9	3.1	0.1	3.24	1.0	0.1	1.12
Trinidad and Tobago	2.6	3.0	0.3	3.28	1.5	0.3	1.85
Countries in developed regions							
Russian Federation	1.1	0.4	0.1	0.50	0.2	0.1	0.30
Ukraine	1.4	1.1	0.1	1.23	0.5	0.1	0.69
United States	0.6	0.3	0.0	0.29	0.2	0.0	0.18

Main table 8A: **Estimated increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2005**
Summary

Region	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
	Estimated prevalence in persons aged 15-49 years 2005	Increase in the estimated economic dependency ratio due to HIV/AIDS (%)	Estimated additional increase in the economic dependency ratio (%)	(%)	Increase in the estimated dependency ratio due to HIV/AIDS (%)	Estimated increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa (40 countries)	6.4	3.6	0.5	4.06	2.0	0.5	2.59
Asia (5 countries)	0.5	0.3	0.1	0.32	0.2	0.1	0.21
Latin America and the Caribbean (12 countries)	0.8	0.4	0.1	0.49	0.2	0.1	0.28
Countries in developed regions (3 countries)	0.8	0.4	0.0	0.42	0.2	0.0	0.25
Total (60 countries)	1.4	0.4	0.1	0.52	0.1	0.2	0.28

Main table 8B: Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2010

Country	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa							
Angola	3.7	1.4	0.2	1.66	1.1	0.3	1.33
Benin	1.8	1.0	0.1	1.14	0.6	0.2	0.74
Botswana	24.1	35.3	3.0	39.41	12.6	3.5	16.60
Burkina Faso	2.0	2.7	0.3	2.94	2.0	0.3	2.27
Burundi	3.3	1.1	0.3	1.44	0.9	0.4	1.25
Cameroon	5.4	4.8	0.5	5.27	2.4	0.6	2.99
Central African Republic	10.7	8.9	1.0	9.98	6.1	1.2	7.34
Chad	3.5	3.5	0.3	3.79	1.7	0.4	2.11
Congo	5.3	4.9	0.3	5.22	2.8	0.4	3.18
Côte d'Ivoire	7.1	5.9	0.5	6.39	3.5	0.6	4.17
Democratic Republic of the Congo	3.2	2.7	0.2	2.91	1.9	0.3	2.22
Djibouti	3.1	0.7	0.2	0.91	0.3	0.2	0.54
Equatorial Guinea	3.2	5.7	0.7	6.47	3.9	0.9	4.87
Eritrea	2.4	1.1	0.2	1.31	0.7	0.2	0.91
Ethiopia	...	1.4	0.3	1.73	1.0	0.4	1.40
Gabon	7.9	4.9	0.6	5.57	3.0	0.7	3.73
Gambia	2.4	0.3	0.1	0.37	0.2	0.1	0.27
Ghana	2.3	1.8	0.3	2.11	0.8	0.3	1.13
Guinea	1.5	1.3	0.3	1.53	0.9	0.3	1.18
Guinea-Bissau	3.8	1.2	0.2	1.44	0.9	0.3	1.13
Kenya	6.1	3.5	0.5	4.04	2.4	0.6	3.05
Lesotho	23.2	22.6	2.3	25.36	8.6	2.7	11.54
Liberia	...	3.6	0.4	3.95	1.9	0.4	2.30
Madagascar	0.5	0.5	0.1	0.64	0.3	0.1	0.46
Malawi	14.1	8.0	1.0	9.06	6.2	1.2	7.40
Mali	1.7	1.1	0.1	1.18	0.7	0.2	0.81
Mozambique	16.1	5.2	0.9	6.11	3.0	1.0	4.00
Namibia	19.6	16.2	1.4	17.79	4.6	1.6	6.29
Niger	1.1	0.4	0.1	0.49	0.3	0.1	0.42
Nigeria	3.9	3.2	0.3	3.52	1.5	0.4	2.00
Rwanda	3.1	2.8	0.3	3.08	1.8	0.4	2.20
Sierra Leone	1.6	0.9	0.1	1.06	0.7	0.2	0.83
South Africa	18.8	15.9	1.8	17.96	8.1	2.2	10.43
Sudan	1.6	1.4	0.2	1.59	0.4	0.2	0.67
Swaziland	33.4	24.5	2.7	27.83	9.2	3.5	13.04
Togo	3.2	2.5	0.3	2.80	1.5	0.3	1.83
Uganda	6.7	5.3	0.2	5.53	3.8	0.3	4.09
United Republic of Tanzania	6.5	5.0	0.7	5.73	3.9	0.8	4.72
Zambia	17.0	7.4	1.0	8.45	6.1	1.2	7.46
Zimbabwe	20.1	19.4	2.0	21.73	11.5	2.2	13.90
Asia							
Cambodia	1.6	2.8	0.2	3.06	1.8	0.2	2.07
China	0.1	0.1	0.0	0.10	0.0	0.0	0.07
India	0.9	1.5	0.1	1.64	0.6	0.1	0.71
Myanmar	1.3	1.1	0.1	1.21	0.7	0.1	0.83
Thailand	1.4	2.6	0.2	2.78	1.7	0.2	1.84
Latin America and the Caribbean							
Bahamas	3.3	4.9	0.2	5.17	3.1	0.2	3.33
Barbados	1.5	2.1	0.1	2.22	1.4	0.0	1.42
Belize	2.5	1.9	0.2	2.09	0.9	0.2	1.10
Brazil	0.5	0.4	0.0	0.39	0.2	0.0	0.24
Dominican Republic	1.1	2.9	0.2	3.11	1.5	0.2	1.69
Guatemala	0.9	1.2	0.1	1.22	0.5	0.1	0.55
Guyana	2.4	4.4	0.2	4.68	2.6	0.3	2.93
Haiti	3.8	4.4	0.4	4.85	2.9	0.5	3.44
Honduras	1.5	1.1	0.1	1.22	0.7	0.1	0.88
Jamaica	1.5	2.0	0.2	2.13	1.0	0.2	1.16
Suriname	1.9	3.6	0.1	3.76	1.2	0.1	1.36
Trinidad and Tobago	2.6	4.1	0.3	4.42	2.2	0.4	2.62
Countries in developed regions							
Russian Federation	1.1	1.4	0.2	1.59	0.8	0.2	0.96
Ukraine	1.4	2.2	0.2	2.38	1.1	0.2	1.30
United States	0.6	0.3	0.0	0.27	0.3	0.0	0.30

Main table 8B: **Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2010**
Summary

Region	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa (40 countries)	6.4	4.6	0.5	5.06	2.7	0.6	3.32
Asia (5 countries)	0.5	0.5	0.1	0.60	0.3	0.1	0.37
Latin America and the Caribbean (12 countries)	0.8	0.6	0.1	0.66	0.3	0.1	0.40
Countries in developed regions (3 countries)	0.8	0.8	0.1	0.91	0.5	0.1	0.58
Total (60 countries)	1.4	0.6	0.1	0.72	0.2	0.2	0.38

Main table 8C: Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2015

Country	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa							
Angola	3.7	1.9	0.2	2.13	1.5	0.3	1.75
Benin	1.8	1.4	0.1	1.46	0.9	0.1	1.02
Botswana	24.1	43.1	3.0	47.43	18.0	3.5	22.11
Burkina Faso	2.0	3.3	0.3	3.54	2.5	0.3	2.80
Burundi	3.3	2.6	0.4	3.02	2.4	0.4	2.82
Cameroon	5.4	5.6	0.5	6.13	3.3	0.6	3.83
Central African Republic	10.7	11.2	0.9	12.27	8.0	1.1	9.18
Chad	3.5	4.3	0.3	4.63	2.3	0.3	2.62
Congo	5.3	5.6	0.3	5.94	3.4	0.4	3.79
Côte d'Ivoire	7.1	6.8	0.5	7.29	4.4	0.6	5.07
Democratic Republic of the Congo	3.2	2.9	0.2	3.17	2.2	0.3	2.50
Djibouti	3.1	1.0	0.2	1.20	0.6	0.2	0.80
Equatorial Guinea	3.2	8.4	0.8	9.23	5.8	1.0	6.90
Eritrea	2.4	1.5	0.2	1.69	1.1	0.2	1.27
Ethiopia	...	2.0	0.3	2.34	1.6	0.4	1.97
Gabon	7.9	6.8	0.7	7.62	4.4	0.9	5.30
Gambia	2.4	0.4	0.1	0.46	0.3	0.1	0.33
Ghana	2.3	2.3	0.2	2.57	1.3	0.3	1.54
Guinea	1.5	2.1	0.3	2.40	1.5	0.3	1.84
Guinea-Bissau	3.8	1.5	0.2	1.65	1.1	0.2	1.31
Kenya	6.1	4.2	0.3	4.54	3.3	0.4	3.71
Lesotho	23.2	27.3	2.2	30.00	12.6	2.6	15.54
Liberia	...	4.7	0.4	5.08	2.5	0.5	2.99
Madagascar	0.5	0.9	0.2	1.05	0.6	0.2	0.75
Malawi	14.1	9.9	1.0	10.96	7.8	1.1	9.00
Mali	1.7	1.3	0.1	1.37	0.8	0.1	0.94
Mozambique	16.1	6.4	0.9	7.33	3.9	0.9	4.91
Namibia	19.6	17.4	1.3	18.95	6.1	1.6	7.77
Niger	1.1	0.6	0.1	0.74	0.5	0.1	0.64
Nigeria	3.9	4.0	0.3	4.36	2.1	0.4	2.56
Rwanda	3.1	3.1	0.3	3.40	2.3	0.4	2.63
Sierra Leone	1.6	1.2	0.1	1.33	1.0	0.1	1.09
South Africa	18.8	20.2	1.7	22.27	11.2	2.2	13.55
Sudan	1.6	2.1	0.2	2.31	0.7	0.3	1.01
Swaziland	33.4	25.5	2.6	28.72	13.5	3.5	17.44
Togo	3.2	3.1	0.2	3.39	2.1	0.3	2.37
Uganda	6.7	5.3	0.1	5.44	4.1	0.2	4.23
United Republic of Tanzania	6.5	6.5	0.7	7.21	5.3	0.7	6.12
Zambia	17.0	9.6	0.9	10.60	8.5	1.1	9.69
Zimbabwe	20.1	24.4	1.9	26.77	15.9	2.2	18.40
Asia							
Cambodia	1.6	3.3	0.2	3.49	2.2	0.2	2.46
China	0.1	0.3	0.1	0.35	0.2	0.1	0.24
India	0.9	2.0	0.1	2.11	0.8	0.1	0.93
Myanmar	1.3	1.4	0.1	1.55	0.9	0.1	1.08
Thailand	1.4	2.8	0.1	2.89	1.8	0.1	1.96
Latin America and the Caribbean							
Bahamas	3.3	4.8	0.2	4.99	3.3	0.2	3.46
Barbados	1.5	2.3	0.1	2.35	1.6	0.0	1.61
Belize	2.5	2.8	0.2	2.97	1.4	0.2	1.62
Brazil	0.5	0.5	0.0	0.53	0.3	0.0	0.34
Dominican Republic	1.1	3.3	0.1	3.39	1.8	0.1	1.95
Guatemala	0.9	1.3	0.1	1.33	0.6	0.1	0.65
Guyana	2.4	4.9	0.2	5.16	3.1	0.3	3.43
Haiti	3.8	4.5	0.4	4.99	3.5	0.5	3.99
Honduras	1.5	1.3	0.1	1.42	1.0	0.1	1.10
Jamaica	1.5	2.4	0.1	2.55	1.3	0.2	1.43
Suriname	1.9	3.7	0.1	3.84	1.4	0.2	1.53
Trinidad and Tobago	2.6	5.0	0.3	5.34	2.9	0.4	3.28
Countries in developed regions							
Russian Federation	1.1	2.8	0.3	3.03	1.6	0.3	1.87
Ukraine	1.4	3.2	0.2	3.44	1.8	0.2	1.99
United States	0.6	0.4	0.0	0.45	0.3	0.0	0.33

Main table 8C: **Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2015**
Summary

Region	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa (40 countries)	6.4	5.6	0.4	6.09	3.7	0.5	4.23
Asia (5 countries)	0.5	0.9	0.1	0.93	0.5	0.1	0.58
Latin America and the Caribbean (12 countries)	0.8	0.8	0.1	0.83	0.5	0.1	0.53
Countries in developed regions (3 countries)	0.8	1.3	0.1	1.38	0.8	0.1	0.91
Total (60 countries)	1.4	1.0	0.2	1.11	0.5	0.2	0.64

Main table 8D: Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2020

Country	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa							
Angola	3.7	2.6	0.2	2.81	2.1	0.2	2.29
Benin	1.8	1.8	0.1	1.91	1.3	0.1	1.34
Botswana	24.1	53.6	2.7	57.67	27.5	2.2	30.27
Burkina Faso	2.0	3.6	0.3	3.90	2.8	0.2	3.09
Burundi	3.3	4.1	0.4	4.43	3.8	0.4	4.12
Cameroon	5.4	7.2	0.5	7.65	4.6	0.4	4.97
Central African Republic	10.7	13.9	0.9	14.95	10.2	0.8	11.15
Chad	3.5	5.3	0.3	5.55	2.9	0.2	3.18
Congo	5.3	6.0	0.3	6.35	3.8	0.3	4.11
Côte d'Ivoire	7.1	7.5	0.5	8.01	5.2	0.4	5.61
Democratic Republic of the Congo	3.2	3.3	0.2	3.52	2.6	0.2	2.79
Djibouti	3.1	1.7	0.2	1.84	1.1	0.1	1.26
Equatorial Guinea	3.2	11.7	0.9	12.65	8.2	0.8	9.12
Eritrea	2.4	2.1	0.2	2.28	1.6	0.1	1.72
Ethiopia	...	2.8	0.4	3.13	2.3	0.3	2.63
Gabon	7.9	9.6	0.8	10.48	6.6	0.7	7.37
Gambia	2.4	0.6	0.1	0.69	0.4	0.0	0.49
Ghana	2.3	3.0	0.2	3.25	1.9	0.2	2.08
Guinea	1.5	3.0	0.3	3.32	2.2	0.3	2.53
Guinea-Bissau	3.8	2.0	0.2	2.13	1.5	0.2	1.68
Kenya	6.1	5.0	0.2	5.25	4.2	0.2	4.39
Lesotho	23.2	37.2	2.2	40.20	20.1	1.8	22.25
Liberia	...	5.8	0.4	6.20	3.2	0.3	3.59
Madagascar	0.5	1.3	0.2	1.52	1.0	0.2	1.11
Malawi	14.1	12.3	0.9	13.41	10.1	0.9	11.04
Mali	1.7	1.5	0.1	1.63	1.0	0.1	1.13
Mozambique	16.1	8.7	0.8	9.63	6.0	0.8	6.80
Namibia	19.6	22.2	1.2	23.76	11.4	1.0	12.49
Niger	1.1	0.8	0.1	0.91	0.6	0.1	0.74
Nigeria	3.9	5.3	0.3	5.62	3.1	0.3	3.33
Rwanda	3.1	4.0	0.3	4.34	3.2	0.3	3.51
Sierra Leone	1.6	1.5	0.1	1.59	1.2	0.1	1.30
South Africa	18.8	25.1	1.6	27.10	15.6	1.3	17.09
Sudan	1.6	3.0	0.2	3.18	1.2	0.2	1.37
Swaziland	33.4	36.2	2.5	39.59	23.7	2.1	26.32
Togo	3.2	4.0	0.2	4.27	2.8	0.2	3.03
Uganda	6.7	4.2	0.1	4.35	3.4	0.1	3.47
United Republic of Tanzania	6.5	8.0	0.7	8.75	6.8	0.6	7.47
Zambia	17.0	12.1	0.9	13.09	10.9	0.8	11.79
Zimbabwe	20.1	30.0	2.0	32.51	20.8	1.7	22.81
Asia							
Cambodia	1.6	3.6	0.2	3.81	2.5	0.2	2.69
China	0.1	0.6	0.1	0.70	0.4	0.1	0.48
India	0.9	2.4	0.1	2.41	1.0	0.1	1.13
Myanmar	1.3	1.7	0.1	1.79	1.1	0.1	1.27
Thailand	1.4	2.6	0.1	2.64	1.7	0.1	1.83
Latin America and the Caribbean							
Bahamas	3.3	4.2	0.2	4.39	3.1	0.1	3.25
Barbados	1.5	2.0	0.1	2.09	1.5	0.1	1.54
Belize	2.5	3.5	0.2	3.71	2.0	0.2	2.17
Brazil	0.5	0.6	0.0	0.57	0.4	0.0	0.38
Dominican Republic	1.1	3.3	0.1	3.43	1.9	0.1	2.01
Guatemala	0.9	1.3	0.1	1.30	0.6	0.0	0.66
Guyana	2.4	4.6	0.3	4.93	3.1	0.2	3.35
Haiti	3.8	4.3	0.4	4.74	3.5	0.4	3.90
Honduras	1.5	1.5	0.1	1.62	1.2	0.1	1.28
Jamaica	1.5	2.7	0.1	2.81	1.6	0.1	1.66
Suriname	1.9	3.3	0.1	3.36	1.3	0.1	1.40
Trinidad and Tobago	2.6	5.9	0.3	6.28	3.6	0.2	3.82
Countries in developed regions							
Russian Federation	1.1	4.0	0.3	4.26	2.3	0.2	2.54
Ukraine	1.4	4.0	0.2	4.20	2.3	0.1	2.44
United States	0.6	0.3	0.0	0.33	0.2	0.0	0.24

Main table 8D: **Projected increase in economic burden and social burden due to deaths and due to illness related to duration of Stages III and IV of HIV/AIDS, both sexes, 60 countries, 2020**
Summary

Region	HIV prevalence	Increase in economic burden due to HIV/AIDS		Total impact	Increase in social burden due to HIV/AIDS		Total impact
		Impact due to deaths	Impact due to illness		Impact due to deaths	Impact due to illness	
	Estimated prevalence in persons aged 15-49 years 2005	Increase in the projected economic dependency ratio due to HIV/AIDS (%)	Projected additional increase in the economic dependency ratio (%)	(%)	Increase in the projected dependency ratio due to HIV/AIDS (%)	Projected increase for adjusted dependency ratio (%)	(%)
Sub-Saharan Africa (40 countries)	6.4	6.7	0.4	7.20	4.8	0.5	5.28
Asia (5 countries)	0.5	1.2	0.1	1.30	0.7	0.1	0.82
Latin America and the Caribbean (12 countries)	0.8	0.9	0.0	0.92	0.5	0.1	0.60
Countries in developed regions (3 countries)	0.8	1.5	0.1	1.61	1.0	0.1	1.08
Total (60 countries)	1.4	1.6	0.1	1.72	0.9	0.2	1.06

Main table 9A: Annual survival of labour force participants in Stage IV of HIV/AIDS with access to antiretroviral treatment, low adherence scenario, by year, 60 countries, 2006-2010

Country	HIV prevalence	Scenario I: Low adherence. Annual continuation rate: Year 1: 80%, Year 2: 64%, Year 3: 51%, Year 4: 41%, Year 5: 33%								
		2006		2007			2008			
Alphabetical order by region	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year
Sub-Saharan Africa									
Angola	3.7	6,400	5,100	6,700	11,800	9,500	7,000	16,500	13,200
Benin	1.8	2,300	1,800	2,300	4,100	3,300	2,300	5,600	4,500
Botswana	24.1	7,900	6,300	8,100	14,400	11,500	8,300	19,800	15,900
Burkina Faso	2.0	6,400	5,100	6,500	11,600	9,300	6,600	15,900	12,700
Burundi	3.3	4,900	3,900	4,900	8,800	7,100	4,900	12,000	9,600
Cameroon	5.4	14,000	11,200	14,300	25,500	20,400	14,600	35,000	28,000
Central African Republic	10.7	6,900	5,500	7,000	12,500	10,000	7,100	17,100	13,700
Chad	3.5	5,100	4,100	5,200	9,300	7,400	5,400	12,800	10,300
Congo	5.3	2,700	2,200	2,700	4,900	3,900	2,700	6,600	5,300
Côte d'Ivoire	7.1	16,300	13,000	16,700	29,700	23,800	17,200	41,000	32,800
Democratic Republic of the Congo	3.2	28,600	22,900	28,800	51,700	41,300	28,900	70,200	56,200
Djibouti	3.1	230	180	250	430	350	260	610	490
Equatorial Guinea	3.2	520	420	580	1,000	800	600	1,400	1,100
Eritrea	2.4	1,500	1,200	1,500	2,700	2,200	1,500	3,700	2,900
Ethiopia	...	37,400	29,900	39,600	69,500	55,600	41,900	97,500	78,000
Gabon	7.9	1,100	880	1,200	2,100	1,700	1,300	3,000	2,400
Gambia	2.4	230	180	230	410	330	230	560	450
Ghana	2.3	8,900	7,100	9,100	16,200	13,000	9,400	22,400	17,900
Guinea	1.5	3,100	2,500	3,500	6,000	4,800	3,800	8,600	6,900
Guinea-Bissau	3.8	550	440	600	1,000	830	640	1,500	1,200
Kenya	6.1	41,800	33,400	40,100	73,500	58,800	38,400	97,200	77,800
Lesotho	23.2	6,100	4,900	6,300	11,200	8,900	6,500	15,400	12,400
Liberia	...	1,900	1,500	2,000	3,500	2,800	2,200	5,000	4,000
Madagascar	0.5	2,700	2,200	3,100	5,300	4,200	3,600	7,800	6,200
Malawi	14.1	23,700	19,000	23,900	42,900	34,300	24,000	58,300	46,600
Mali	1.7	2,900	2,300	3,100	5,400	4,300	3,200	7,500	6,000
Mozambique	16.1	25,500	20,400	26,900	47,300	37,800	28,300	66,100	52,900
Namibia	19.6	4,000	3,200	4,200	7,400	5,900	4,500	10,400	8,300
Niger	1.1	1,600	1,300	1,900	3,200	2,500	2,100	4,600	3,700
Nigeria	3.9	84,300	67,400	86,600	154,000	123,200	88,900	212,100	169,700
Rwanda	3.1	4,900	3,900	4,900	8,800	7,100	5,000	12,100	9,600
Sierra Leone	1.6	1,400	1,100	1,500	2,600	2,100	1,500	3,600	2,900
South Africa	18.8	109,800	87,800	119,300	207,100	165,700	128,800	294,500	235,600
Sudan	1.6	8,400	6,700	9,500	16,200	13,000	10,600	23,600	18,900
Swaziland	33.4	4,400	3,500	4,600	8,100	6,500	4,800	11,300	9,000
Togo	3.2	3,300	2,600	3,300	5,900	4,800	3,300	8,100	6,400
Uganda	6.7	19,100	15,300	17,200	32,500	26,000	15,400	41,400	33,100
United Republic of Tanzania	6.5	45,300	36,200	45,700	81,900	65,600	46,000	111,600	89,200
Zambia	17.0	22,600	18,100	22,600	40,700	32,500	22,600	55,100	44,100
Zimbabwe	20.1	41,500	33,200	41,700	74,900	59,900	41,900	101,800	81,500
Asia									
Cambodia	1.6	5,400	4,300	5,300	9,600	7,700	5,300	13,000	10,400
China	0.1	12,000	9,600	13,100	22,700	18,200	14,200	32,400	25,900
India	0.9	143,300	114,600	151,300	265,900	212,800	159,300	372,100	297,600
Myanmar	1.3	7,800	6,200	8,500	14,700	11,800	9,100	20,900	16,700
Thailand	1.4	5,800	4,600	5,400	10,000	8,000	5,000	13,000	10,400
Latin America and the Caribbean									
Bahamas	3.3	150	120	140	260	210	140	350	280
Barbados	1.5	60	50	60	110	90	50	140	110
Belize	2.5	50	40	60	100	80	60	140	110
Brazil	0.5	5,800	4,600	5,400	10,000	8,000	5,100	13,100	10,500
Dominican Republic	1.1	2,400	1,900	2,400	4,300	3,500	2,400	5,900	4,700
Guatemala	0.9	1,600	1,300	1,600	2,900	2,300	1,600	3,900	3,100
Guyana	2.4	330	260	320	580	470	310	780	620
Haiti	3.8	6,300	5,000	6,400	11,400	9,200	6,400	15,600	12,400
Honduras	1.5	1,600	1,300	1,600	2,900	2,300	1,600	3,900	3,100
Jamaica	1.5	630	500	640	1,140	920	650	1,570	1,250
Suriname	1.9	90	70	80	150	120	80	200	160
Trinidad and Tobago	2.6	620	500	630	1,130	900	650	1,550	1,240
Countries in developed regions									
Russian Federation	1.1	18,200	14,600	23,300	37,900	30,300	28,400	58,700	47,000
Ukraine	1.4	9,900	7,900	10,800	18,700	15,000	11,700	26,700	21,300
United States	0.6	4,200	3,400	4,100	7,500	6,000	4,000	10,000	8,000

Scenario I: Low adherence. Annual continuation rate: Year 1: 80%, Year 2: 64%, Year 3: 51%, Year 4: 41%, Year 5: 33%						Country
2009			2010			
New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	Alphabetical order by region
						Sub-Saharan Africa
7,200	20,400	16,300	7,500	23,800	19,000	**Angola**
2,300	6,800	5,400	2,300	7,700	6,200	**Benin**
8,500	24,400	19,500	8,700	28,200	22,600	**Botswana**
6,700	19,400	15,500	6,800	22,300	17,900	**Burkina Faso**
4,800	14,400	11,500	4,800	16,300	13,000	**Burundi**
14,900	42,900	34,300	15,200	49,500	39,600	**Cameroon**
7,200	20,900	16,700	7,400	24,100	19,300	**Central African Republic**
5,600	15,900	12,700	5,800	18,500	14,800	**Chad**
2,700	8,000	6,400	2,700	9,100	7,300	**Congo**
17,600	50,400	40,300	18,000	58,300	46,700	**Côte d'Ivoire**
29,100	85,300	68,200	29,300	97,500	78,000	**Democratic Republic of the Congo**
280	770	610	290	900	720	**Djibouti**
700	1,800	1,500	750	2,200	1,800	**Equatorial Guinea**
1,500	4,400	3,500	1,600	5,100	4,100	**Eritrea**
44,100	122,100	97,700	46,400	144,100	115,300	**Ethiopia**
1,400	3,800	3,000	1,500	4,500	3,600	**Gabon**
240	690	550	240	790	630	**Gambia**
9,700	27,600	22,100	10,000	32,100	25,700	**Ghana**
4,200	11,100	8,900	4,500	13,400	10,700	**Guinea**
680	1,900	1,500	720	2,200	1,800	**Guinea-Bissau**
36,700	114,500	91,600	35,000	126,600	101,300	**Kenya**
6,600	19,000	15,200	6,800	22,000	17,600	**Lesotho**
2,300	6,300	5,100	2,400	7,500	6,000	**Liberia**
4,000	10,200	8,200	4,500	12,700	10,200	**Madagascar**
24,200	70,800	56,700	24,400	81,100	64,900	**Malawi**
3,400	9,400	7,500	3,500	11,000	8,800	**Mali**
29,800	82,700	66,200	31,200	97,400	77,900	**Mozambique**
4,700	13,000	10,400	4,900	15,300	12,300	**Namibia**
2,300	6,000	4,800	2,600	7,400	5,900	**Niger**
91,200	260,900	208,700	93,600	302,300	241,900	**Nigeria**
5,100	14,700	11,800	5,200	17,000	13,600	**Rwanda**
1,500	4,400	3,500	1,500	5,000	4,000	**Sierra Leone**
138,200	373,800	299,000	147,700	446,700	357,400	**South Africa**
11,700	30,600	24,400	12,800	37,200	29,800	**Sudan**
4,900	13,900	11,100	5,100	16,200	13,000	**Swaziland**
3,300	9,700	7,800	3,400	11,200	9,000	**Togo**
13,600	46,700	37,400	11,800	49,200	39,300	**Uganda**
46,400	135,600	108,500	46,800	155,300	124,300	**United Republic of Tanzania**
22,600	66,700	53,400	22,600	76,000	60,800	**Zambia**
42,200	123,700	98,900	42,400	141,300	113,100	**Zimbabwe**
						Asia
5,300	15,700	12,600	5,300	17,900	14,300	**Cambodia**
15,400	41,300	33,000	16,500	49,500	39,600	**China**
167,300	464,900	372,000	175,200	547,200	437,700	**India**
9,800	26,500	21,200	10,500	31,700	25,400	**Myanmar**
4,600	15,000	12,000	4,200	16,200	13,000	**Thailand**
						Latin America and the Caribbean
130	410	330	120	450	360	**Bahamas**
50	160	130	40	170	130	**Barbados**
70	180	150	70	220	170	**Belize**
4,700	15,200	12,200	4,400	16,600	13,300	**Brazil**
2,300	7,000	5,600	2,300	7,900	6,300	**Dominican Republic**
1,600	4,700	3,800	1,600	5,400	4,300	**Guatemala**
300	920	740	290	1,030	820	**Guyana**
6,500	18,900	15,200	6,500	21,700	17,300	**Haiti**
1,500	4,600	3,700	1,500	5,200	4,200	**Honduras**
700	1,950	1,560	670	2,230	1,790	**Jamaica**
80	240	190	80	270	220	**Suriname**
700	1,940	1,550	680	2,230	1,790	**Trinidad and Tobago**
						Countries in developed regions
33,500	80,500	64,400	38,600	103,000	82,400	**Russian Federation**
12,600	33,900	27,200	13,500	40,700	32,500	**Ukraine**
3,900	11,900	9,500	3,800	13,300	10,600	**United States**

Main table 9A: **Annual survival of labour force participants in Stage IV of HIV/AIDS with access to antiretroviral treatment, low adherence scenario, by year, 60 countries, 2006-2010**
Summary

Region	HIV prevalence	Scenario I: low adherence. Annual continuation rate: Year 1: 80%, Year 2: 64%, Year 3: 51%, Year 4: 41%, Year 5: 33%							
		2006		2007			2008		
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year
Sub-Saharan Africa (40 countries)	6.4	610,200	487,900	628,200	1,116,000	893,000	646,200	1,539,300	1,231,400
Asia (5 countries)	0.5	174,300	139,300	183,600	322,900	258,500	192,900	451,400	361,000
Latin America and the Caribbean (12 countries)	0.8	19,600	15,600	19,300	35,000	28,100	19,000	47,100	37,600
Countries in developed regions (3 countries)	0.8	32,300	25,900	38,200	64,100	51,300	44,100	95,400	76,300
Total (60 countries)	1.4	836,400	668,700	869,300	1,538,000	1,230,900	902,200	2,133,200	1,706,300

Scenario I: low adherence. Annual continuation rate: Year 1: 80%, Year 2: 64%, Year 3: 51%, Year 4: 41%, Year 5: 33%						Region
2009			2010			
New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	
664,100	1,895,600	1,516,400	682,700	2,199,900	1,759,900	Sub-Saharan Africa (40 countries)
202,400	563,400	450,800	211,700	662,500	530,000	Asia (5 countries)
18,600	56,200	45,200	18,200	63,400	50,700	Latin America and the Caribbean (12 countries)
50,000	126,300	101,100	55,900	157,000	125,500	Countries in developed regions (3 countries)
935,100	2,641,500	2,113,500	968,500	3,082,800	2,466,100	Total (60 countries)

Main table 9B: Annual survival of labour force participants in Stage IV of HIV/AIDS with access to antiretroviral treatment, high adherence scenario, by year, 60 countries, 2006-2010

Country	HIV prevalence	Scenario II: High adherence. Annual continuation rate: Year 1: 93%, Year 2: 86%, Year 3: 80%, Year 4: 75%, Year 5: 70%								
		2006		2007			2008			
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years (%) 2005	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants into Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants into Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year
Sub-Saharan Africa									
Angola	3.7	6,400	6,000	6,700	12,700	11,800	7,000	18,800	17,500
Benin	1.8	2,300	2,100	2,300	4,400	4,100	2,300	6,400	6,000
Botswana	24.1	7,900	7,300	8,100	15,400	14,400	8,300	22,700	21,100
Burkina Faso	2.0	6,400	6,000	6,500	12,500	11,600	6,600	18,200	16,900
Burundi	3.3	4,900	4,600	4,900	9,500	8,800	4,900	13,700	12,700
Cameroon	5.4	14,000	13,000	14,300	27,300	25,400	14,600	40,000	37,200
Central African Republic	10.7	6,900	6,400	7,000	13,400	12,500	7,100	19,600	18,200
Chad	3.5	5,100	4,700	5,200	9,900	9,200	5,400	14,600	13,600
Congo	5.3	2,700	2,500	2,700	5,200	4,800	2,700	7,500	7,000
Côte d'Ivoire	7.1	16,300	15,200	16,700	31,900	29,600	17,200	46,800	43,600
Democratic Republic of the Congo	3.2	28,600	26,600	28,800	55,400	51,500	28,900	80,400	74,800
Djibouti	3.1	230	210	250	460	430	260	690	640
Equatorial Guinea	3.2	520	480	580	1,100	990	600	1,600	1,500
Eritrea	2.4	1,500	1,400	1,500	2,900	2,700	1,500	4,200	3,900
Ethiopia	...	37,400	34,800	39,600	74,400	69,200	41,900	111,100	103,300
Gabon	7.9	1,100	1,000	1,200	2,200	2,100	1,300	3,400	3,100
Gambia	2.4	230	210	230	440	410	230	640	600
Ghana	2.3	8,900	8,300	9,100	17,400	16,200	9,400	25,600	23,800
Guinea	1.5	3,100	2,900	3,500	6,400	5,900	3,800	9,700	9,100
Guinea-Bissau	3.8	550	510	600	1,100	1,000	640	1,700	1,600
Kenya	6.1	41,800	38,900	40,100	79,000	73,400	38,400	111,800	104,000
Lesotho	23.2	6,100	5,700	6,300	12,000	11,100	6,500	17,600	16,400
Liberia	...	1,900	1,800	2,000	3,800	3,500	2,200	5,700	5,300
Madagascar	0.5	2,700	2,500	3,100	5,600	5,200	3,600	8,800	8,200
Malawi	14.1	23,700	22,000	23,900	45,900	42,700	24,000	66,700	62,100
Mali	1.7	2,900	2,700	3,100	5,800	5,400	3,200	8,600	8,000
Mozambique	16.1	25,500	23,700	26,900	50,600	47,100	28,300	75,400	70,100
Namibia	19.6	4,000	3,700	4,200	7,900	7,400	4,500	11,900	11,000
Niger	1.1	1,600	1,500	1,900	3,400	3,200	2,100	5,300	4,900
Nigeria	3.9	84,300	78,400	86,600	165,000	153,400	88,900	242,300	225,400
Rwanda	3.1	4,900	4,600	4,900	9,500	8,800	5,000	13,800	12,800
Sierra Leone	1.6	1,400	1,300	1,500	2,800	2,600	1,500	4,100	3,800
South Africa	18.8	109,800	102,100	119,300	221,400	205,900	128,800	334,700	311,300
Sudan	1.6	8,400	7,800	9,500	17,300	16,100	10,600	26,700	24,800
Swaziland	33.4	4,400	4,100	4,600	8,700	8,100	4,800	12,900	12,000
Togo	3.2	3,300	3,100	3,300	6,400	5,900	3,300	9,200	8,600
Uganda	6.7	19,100	17,800	17,200	35,000	32,500	15,400	47,900	44,600
United Republic of Tanzania	6.5	45,300	42,100	45,700	87,800	81,700	46,000	127,700	118,700
Zambia	17.0	22,600	21,000	22,600	43,600	40,600	22,600	63,200	58,700
Zimbabwe	20.1	41,500	38,600	41,700	80,300	74,700	41,900	116,600	108,400
Asia									
Cambodia	1.6	5,400	5,000	5,300	10,300	9,600	5,300	14,900	13,900
China	0.1	12,000	11,200	13,100	24,300	22,600	14,200	36,800	34,200
India	0.9	143,300	133,300	151,300	284,600	264,600	159,300	423,900	394,300
Myanmar	1.3	7,800	7,300	8,500	15,800	14,700	9,100	23,800	22,100
Thailand	1.4	5'800	5'400	5'400	10'800	10'000	5'000	15'000	14'000
Latin America and the Caribbean									
Bahamas	3.3	150	140	140	280	260	140	400	370
Barbados	1.5	60	60	60	120	110	50	160	150
Belize	2.5	50	50	60	110	100	60	160	150
Brazil	0.5	5'800	5'400	5'400	10'800	10'000	5'100	15'100	14'100
Dominican Republic	1.1	2'400	2'200	2'400	4'600	4'300	2'400	6'700	6'200
Guatemala	0.9	1'600	1'500	1'600	3'100	2'900	1'600	4'500	4'200
Guyana	2.4	330	310	320	630	580	310	890	830
Haiti	3.8	6'300	5'900	6'400	12'300	11'400	6'400	17'800	16'600
Honduras	1.5	1'600	1'500	1'600	3'100	2'900	1'600	4'500	4'200
Jamaica	1.5	630	590	640	1'230	1'140	650	1'790	1'660
Suriname	1.9	90	80	80	160	150	80	230	220
Trinidad and Tobago	2.6	620	580	630	1'210	1'120	650	1'770	1'650
Countries in developed regions									
Russian Federation	1.1	18'200	16'900	23'300	40'200	37'400	28'400	65'800	61'200
Ukraine	1.4	9'900	9'200	10'800	20'000	18'600	11'700	30'300	28'200
United States	0.6	4'200	3'900	4'100	8'000	7'400	4'000	11'400	10'600

Scenario II: High adherence. Annual continuation rate: Year 1: 93%, Year 2: 86%, Year 3: 80%, Year 4: 75%, Year 5: 70%						Country
2009			2010			
New entrants into Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	New entrants into Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARVs	Number of labour force participants under treatment who would survive to end of year	Alphabetical order by region
						Sub-Saharan Africa
7,200	24,700	22,900	7,500	30,400	28,300	Angola
2,300	8,300	7,700	2,300	10,000	9,300	Benin
8,500	29,600	27,500	8,700	36,200	33,700	Botswana
6,700	23,600	22,000	6,800	28,800	26,700	Burkina Faso
4,800	17,500	16,300	4,800	21,100	19,600	Burundi
14,900	52,100	48,500	15,200	63,700	59,200	Cameroon
7,200	25,400	23,600	7,400	31,000	28,900	Central African Republic
5,600	19,200	17,900	5,800	23,700	22,000	Chad
2,700	9,700	9,000	2,700	11,700	10,900	Congo
17,600	61,200	56,900	18,000	74,900	69,600	Côte d'Ivoire
29,100	103,900	96,600	29,300	125,900	117,100	Democratic Republic of the Congo
280	920	860	290	1,150	1,070	Djibouti
700	2,200	2,000	750	2,800	2,600	Equatorial Guinea
1,500	5,400	5,000	1,600	6,600	6,200	Eritrea
44,100	147,400	137,100	46,400	183,500	170,600	Ethiopia
1,400	4,500	4,200	1,500	5,700	5,300	Gabon
240	840	780	240	1,020	950	Gambia
9,700	33,500	31,100	10,000	41,100	38,200	Ghana
4,200	13,300	12,300	4,500	16,800	15,600	Guinea
680	2,200	2,100	720	2,800	2,600	Guinea-Bissau
36,700	140,700	130,900	35,000	165,900	154,300	Kenya
6,600	23,000	21,400	6,800	28,200	26,200	Lesotho
2,300	7,600	7,100	2,400	9,500	8,800	Liberia
4,000	12,200	11,300	4,500	15,800	14,700	Madagascar
24,200	86,300	80,200	24,400	104,600	97,300	Malawi
3,400	11,400	10,600	3,500	14,100	13,100	Mali
29,800	99,900	92,900	31,200	124,100	115,400	Mozambique
4,700	15,700	14,600	4,900	19,500	18,200	Namibia
2,300	7,200	6,700	2,600	9,300	8,600	Niger
91,200	316,600	294,400	93,600	388,000	360,900	Nigeria
5,100	17,900	16,700	5,200	21,900	20,300	Rwanda
1,500	5,300	4,900	1,500	6,400	6,000	Sierra Leone
138,200	449,500	418,000	147,700	565,700	526,100	South Africa
11,700	36,500	34,000	12,800	46,800	43,500	Sudan
4,900	16,900	15,700	5,100	20,800	19,300	Swaziland
3,300	11,900	11,000	3,400	14,400	13,400	Togo
13,600	58,200	54,100	11,800	65,900	61,300	Uganda
46,400	165,100	153,600	46,800	200,400	186,400	United Republic of Tanzania
22,600	81,300	75,600	22,600	98,200	91,400	Zambia
42,200	150,600	140,100	42,400	182,500	169,700	Zimbabwe
						Asia
5,300	19,200	17,800	5,300	23,100	21,500	Cambodia
15,400	49,600	46,100	16,500	62,600	58,200	China
167,300	561,600	522,300	175,200	697,500	648,600	India
9,800	31,900	29,700	10,500	40,200	37,300	Myanmar
4'600	18'600	17'300	4'200	21'500	20'000	Thailand
						Latin America and the Caribbean
130	500	470	120	590	550	Bahamas
50	200	180	40	220	210	Barbados
70	220	200	70	270	250	Belize
4'700	18'800	17'500	4'400	21'900	20'300	Brazil
2'300	8'500	7'900	2'300	10'200	9'500	Dominican Republic
1'600	5'800	5'400	1'600	7'000	6'500	Guatemala
300	1'130	1'050	290	1'340	1'250	Guyana
6'500	23'100	21'400	6'500	27'900	26'000	Haiti
1'500	5'700	5'300	1'500	6'800	6'300	Honduras
700	2'360	2'200	670	2'870	2'670	Jamaica
80	300	280	80	360	330	Suriname
700	2'350	2'180	680	2'860	2'660	Trinidad and Tobago
						Countries in developed regions
33'500	94'700	88'100	38'600	126'700	117'800	Russian Federation
12'600	40'800	37'900	13'500	51'400	47'800	Ukraine
3'900	14'500	13'500	3'800	17'300	16'100	United States

Main table 9B: **Annual survival of labour force participants in Stage IV of HIV/AIDS with access to antiretroviral treatment, high adherence scenario, by year, 60 countries, 2006-2010**
Summary

Region	HIV prevalence	Scenario II: High adherence. Annual continuation rate: Year 1: 93%, Year 2: 86%, Year 3: 80%, Year 4: 75%, Year 5: 70%							
		2006		2007			2008		
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARV	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARV	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARV	Number of labour force participants under treatment who would survive to end of year
Sub-Saharan Africa (40 countries)	6.4	610,200	567,600	628,200	1,195,800	1,111,900	646,200	1,758,200	1,635,200
Asia (5 countries)	0.5	174,300	162,200	183,600	345,800	321,500	192,900	514,400	478,500
Latin America and the Caribbean (12 countries)	0.8	19,600	18,300	19,300	37,600	35,000	19,000	54,000	50,300
Countries in developed regions (3 countries)	0.8	32,300	30,000	38,200	68,200	63,400	44,100	107,500	100,000
Total (60 countries)	1.4	836,400	778,100	869,300	1,647,400	1,531,800	902,200	2,434,100	2,264,000

Scenario II: High adherence. Annual continuation rate: Year 1: 93%, Year 2: 86%, Year 3: 80%, Year 4: 75%, Year 5: 70%						Region
2009			2010			
New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARV	Number of labour force participants under treatment who would survive to end of year	New entrants in Stage IV this year	Number of labour force participants fully unable to work and who will die by end of year in the absence of ARV	Number of labour force participants under treatment who would survive to end of year	
664,100	2,299,300	2,138,100	682,700	2,820,900	2,623,300	Sub-Saharan Africa (40 countries)
202,400	680,900	633,200	211,700	844,900	785,600	Asia (5 countries)
18,600	69,000	64,100	18,300	82,300	76,500	Latin America and the Caribbean (12 countries)
50,000	150,000	139,500	55,900	195,400	181,700	Countries in developed regions (3 countries)
935,100	3,199,200	2,974,900	968,600	3,943,500	3,667,100	Total (60 countries)

Main table 10: Projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, vaccination scenario, by sex, 60 countries, to 2010-2020

Country	HIV prevalence	Cumulative mortality losses to the male, female and total labour force to 2010 and 2015							
		To 2010				To 2015			
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years (%) 2005	Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)
Sub-Saharan Africa									
Angola	3.7	188,900	168,500	357,400	4.19	247,600	238,500	486,100	4.91
Benin	1.8	59,100	43,300	102,400	2.57	77,400	58,000	135,400	2.90
Botswana	24.1	160,400	115,600	276,000	31.16	208,200	157,600	365,800	36.50
Burkina Faso	2.0	253,600	257,700	511,300	6.98	321,800	342,200	664,000	7.68
Burundi	3.3	196,500	222,800	419,300	8.16	257,100	301,800	558,900	9.44
Cameroon	5.4	325,300	251,900	577,200	7.59	414,100	336,800	750,900	8.65
Central African Republic	10.7	184,300	173,300	357,600	15.18	236,700	236,700	473,400	17.51
Chad	3.5	130,800	124,800	255,600	5.81	168,400	174,200	342,600	6.71
Congo	5.3	98,800	72,500	171,300	9.02	125,100	96,700	221,800	9.76
Côte d'Ivoire	7.1	521,000	243,200	764,200	9.12	660,700	322,400	983,100	10.22
Democratic Republic of the Congo	3.2	926,600	743,500	1,670,100	5.90	1,174,200	972,100	2,146,300	6.46
Djibouti	3.1	5,400	4,400	9,800	2.72	7,500	6,100	13,600	3.33
Equatorial Guinea	3.2	13,700	9,500	23,200	9.58	19,400	15,000	34,400	12.24
Eritrea	2.4	43,900	31,000	74,900	3.43	56,800	42,200	99,000	3.85
Ethiopia	...	1,049,700	952,700	2,002,400	4.84	1,420,200	1,362,000	2,782,200	5.81
Gabon	7.9	29,400	25,500	54,900	7.53	41,200	38,700	79,900	9.52
Gambia	2.4	6,000	4,900	10,900	1.42	7,800	6,600	14,400	1.64
Ghana	2.3	226,700	247,200	473,900	4.08	290,700	332,700	623,400	4.70
Guinea	1.5	85,900	90,800	176,700	3.44	123,200	141,200	264,400	4.43
Guinea-Bissau	3.8	14,400	10,400	24,800	3.28	19,600	15,500	35,100	3.95
Kenya	6.1	944,700	1,133,400	2,078,100	10.51	1,182,200	1,428,000	2,610,200	11.38
Lesotho	23.2	119,400	95,300	214,700	25.32	148,800	128,000	276,800	29.43
Liberia	...	51,500	32,700	84,200	5.84	67,900	50,700	118,600	7.12
Madagascar	0.5	76,700	75,500	152,200	1.50	116,800	126,700	243,500	2.04
Malawi	14.1	632,500	708,000	1,340,500	16.65	833,000	989,700	1,822,700	18.84
Mali	1.7	79,500	87,600	167,100	2.61	103,500	122,600	226,100	2.99
Mozambique	16.1	571,800	707,200	1,279,000	11.14	760,000	1,011,200	1,771,200	13.34
Namibia	19.6	80,000	64,200	144,200	17.03	104,200	89,800	194,000	19.46
Niger	1.1	44,500	39,200	83,700	1.18	69,700	65,900	135,600	1.58
Nigeria	3.9	2,156,500	1,483,200	3,639,700	6.29	2,814,700	2,053,700	4,868,400	7.29
Rwanda	3.1	238,700	233,200	471,900	8.94	283,300	296,800	580,100	9.56
Sierra Leone	1.6	40,400	24,900	65,300	2.43	50,900	33,500	84,400	2.77
South Africa	18.8	2,511,700	1,594,300	4,106,000	17.16	3,279,800	2,204,900	5,484,700	21.12
Sudan	1.6	203,400	72,000	275,400	2.27	292,500	113,200	405,700	2.96
Swaziland	33.4	92,600	46,500	139,100	30.36	118,800	61,000	179,800	34.06
Togo	3.2	87,000	47,800	134,800	4.58	112,400	67,800	180,200	5.22
Uganda	6.7	896,300	960,800	1,857,100	11.68	1,061,800	1,167,000	2,228,800	11.62
United Republic of Tanzania	6.5	1,254,900	1,426,600	2,681,500	11.00	1,626,900	1,915,600	3,542,500	12.53
Zambia	17.0	684,100	574,000	1,258,100	18.60	885,100	746,800	1,631,900	20.66
Zimbabwe	20.1	1,090,800	1,038,600	2,129,400	25.56	1,382,300	1,381,900	2,764,200	28.91
Asia									
Cambodia	1.6	203,700	32,100	235,800	3.22	251,700	56,500	308,200	3.64
China	0.1	1,298,900	213,100	1,512,000	0.21	1,992,200	409,400	2,401,600	0.31
India	0.9	5,968,000	549,400	6,517,400	1.42	7,592,700	977,900	8,570,600	1.69
Myanmar	1.3	316,300	50,100	366,400	1.36	416,400	96,900	513,300	1.69
Thailand	1.4	797,200	164,900	962,100	2.67	877,600	239,100	1,116,700	2.91
Latin America and the Caribbean									
Bahamas	3.3	5,100	3,800	8,900	5.01	5,500	4,200	9,700	5.10
Barbados	1.5	2,600	520	3,120	1.90	2,700	710	3,410	2.11
Belize	2.5	1,900	460	2,360	1.81	2,800	860	3,660	2.39
Brazil	0.5	408,600	143,700	552,300	0.56	482,700	202,300	685,000	0.65
Dominican Republic	1.1	93,300	18,700	112,000	2.51	109,200	25,900	135,100	2.73
Guatemala	0.9	55,400	17,200	72,600	1.51	69,400	24,300	93,700	1.67
Guyana	2.4	11,500	7,100	18,600	5.15	13,100	8,300	21,400	5.75
Haiti	3.8	259,600	181,300	440,900	9.59	313,700	234,800	548,500	10.49
Honduras	1.5	52,100	38,800	90,900	2.34	66,000	52,800	118,800	2.61
Jamaica	1.5	13,800	10,700	24,500	2.00	17,400	13,900	31,300	2.42
Suriname	1.9	3,500	680	4,200	2.49	3,800	860	4,600	2.66
Trinidad and Tobago	2.6	18,500	7,600	26,100	3.87	22,000	10,500	32,500	4.79
Countries in developed regions									
Russian Federation	1.1	634,500	259,400	893,900	1.21	991,200	483,900	1,475,100	2.06
Ukraine	1.4	287,900	116,200	404,100	1.86	357,900	162,600	520,500	2.51
United States	0.6	687,800	144,400	832,200	0.51	736,700	188,300	925,000	0.54

Cumulative mortality losses to 2020				Country
To 2020				
Men	Women	Total	Total losses as a proportion of the total labour force (%)	Alphabetical order by region
				Sub-Saharan Africa
294,800	291,000	585,800	5.09	Angola
93,100	69,100	162,200	2.96	Benin
230,800	175,100	405,900	36.26	Botswana
378,800	409,200	788,000	7.72	Burkina Faso
312,200	366,900	679,100	9.93	Burundi
472,800	385,500	858,300	8.73	Cameroon
273,300	279,200	552,500	17.92	Central African Republic
193,700	210,700	404,400	6.73	Chad
147,900	115,900	263,800	9.66	Congo
753,200	365,900	1,119,100	10.21	Côte d'Ivoire
1,386,700	1,135,700	2,522,400	6.42	Democratic Republic of the Congo
9,000	7,300	16,300	3.47	Djibouti
23,300	19,100	42,400	12.86	Equatorial Guinea
67,900	50,700	118,600	3.91	Eritrea
1,687,400	1,636,800	3,324,200	6.03	Ethiopia
49,100	47,300	96,400	10.12	Gabon
9,400	7,800	17,200	1.72	Gambia
332,500	384,600	717,100	4.77	Ghana
150,800	176,500	327,300	4.69	Guinea
24,000	19,200	43,200	4.01	Guinea-Bissau
1,420,000	1,636,300	3,056,300	11.46	Kenya
165,900	144,100	310,000	29.94	Lesotho
75,900	63,200	139,100	7.20	Liberia
145,100	161,400	306,500	2.20	Madagascar
998,400	1,207,400	2,205,800	19.14	Malawi
124,400	149,400	273,800	3.05	Mali
893,200	1,212,000	2,105,200	13.71	Mozambique
115,900	101,000	216,900	18.80	Namibia
90,800	86,200	177,000	1.72	Niger
3,310,000	2,427,400	5,737,400	7.47	Nigeria
322,200	346,100	668,300	9.65	Rwanda
58,900	39,400	98,300	2.82	Sierra Leone
3,541,900	2,386,700	5,928,600	21.19	South Africa
340,300	138,500	478,800	3.11	Sudan
135,900	67,900	203,800	34.20	Swaziland
132,400	82,600	215,000	5.33	Togo
1,216,800	1,346,100	2,562,900	11.00	Uganda
1,903,600	2,246,200	4,149,800	12.75	United Republic of Tanzania
1,056,400	873,100	1,929,500	20.94	Zambia
1,566,200	1,581,200	3,147,400	29.18	Zimbabwe
				Asia
270,400	96,400	366,800	3.62	Cambodia
2,281,800	724,600	3,006,400	0.36	China
8,095,400	1,647,100	9,742,500	1.69	India
454,600	166,300	620,900	1.77	Myanmar
849,800	309,400	1,159,200	2.82	Thailand
				Latin America and the Caribbean
5,400	4,100	9,500	4.71	Bahamas
2,500	750	3,250	2.06	Barbados
3,200	1,100	4,300	2.46	Belize
512,000	236,000	748,000	0.68	Brazil
111,500	30,500	142,000	2.64	Dominican Republic
78,600	29,900	108,500	1.67	Guatemala
13,600	8,600	22,200	5.85	Guyana
352,900	269,600	622,500	10.62	Haiti
75,800	62,500	138,300	2.67	Honduras
18,900	15,000	33,900	2.53	Jamaica
3,400	870	4,300	2.42	Suriname
22,400	11,600	34,000	5.09	Trinidad and Tobago
				Countries in developed regions
1,061,000	564,600	1,625,600	2.40	Russian Federation
347,800	167,400	515,200	2.67	Ukraine
709,000	212,200	921,200	0.53	United States

Main table 10: **Projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, vaccination scenario, by sex, 60 countries, to 2010-2020**
Summary

Region	HIV prevalence	Cumulative mortality losses to the male, female and total labour force to 2010 and 2015							
		To 2010				To 2015			
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Men	Women	Total	Total losses as a proportion of the total labour force (%)	Men	Women	Total	Total losses as a proportion of the total labour force (%)
Sub-Saharan Africa (40 countries)	6.4	16,377,400	14,238,500	30,615,900	9.06	21,172,300	19,251,800	40,424,100	10.56
Asia (5 countries)	0.5	8,584,100	1,009,600	9,593,700	0.70	11,130,600	1,779,800	12,910,400	0.90
Latin America and the Caribbean (12 countries)	0.8	925,900	430,560	1,356,480	1.15	1,108,300	579,430	1,687,670	1.34
Countries in developed regions (3 countries)	0.5	1,610,200	520,000	2,130,200	0.83	2,085,800	834,800	2,920,600	1.13
Total (60 countries)	1.4	27,497,600	16,198,660	43,696,280	2.01	35,497,000	22,445,830	57,942,770	2.64

Cumulative mortality losses to 2020				Region
To 2020				
Men	Women	Total	Total losses as a proportion of the total labour force (%)	
24,504,900	22,449,700	46,954,600	10.80	Sub-Saharan Africa (40 countries)
11,952,000	2,943,800	14,895,800	1.02	Asia (5 countries)
1,200,200	670,520	1,870,750	1.39	Latin America and the Caribbean (12 countries)
2,117,800	944,200	3,062,000	1.19	Countries in developed regions (3 countries)
39,774,900	27,008,220	66,783,150	2.92	Total (60 countries)

Main table 11: Projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, difference between vaccination and no vaccination scenarios, by sex, 60 countries, to 2010-2020

Country	HIV prevalence	Difference in cumulative mortality losses to the male, female and total labour force to years 2010 and 2015							
		To 2010				To 2015			
Alphabetical order by region	Estimated prevalence in persons aged 15-49 years (%) 2005	Men	Women	Total	Difference in losses as a proportion of the total labour force (%)	Men	Women	Total	Difference in losses as a proportion of the total labour force (%)
Sub-Saharan Africa									
Angola	3.7	2,400	1,400	3,800	1.1	25,300	19,700	45,000	9.3
Benin	1.8	500	200	700	0.7	6,300	3,700	10,000	7.4
Botswana	24.1	1,300	600	1,900	0.7	16,000	10,200	26,200	7.2
Burkina Faso	2.0	1,500	600	2,100	0.4	21,600	18,100	39,700	6.0
Burundi	3.3	1,900	1,300	3,200	0.8	20,600	19,900	40,500	7.2
Cameroon	5.4	4,300	2,200	6,500	1.1	43,900	27,900	71,800	9.6
Central African Republic	10.7	2,100	1,200	3,300	0.9	22,800	16,500	39,300	8.3
Chad	3.5	1,500	800	2,300	0.9	17,500	14,000	31,500	9.2
Congo	5.3	800	300	1,100	0.6	9,800	5,700	15,500	7.0
Côte d'Ivoire	7.1	5,000	1,300	6,300	0.8	60,900	26,000	86,900	8.8
Democratic Republic of the Congo	3.2	9,400	4,600	14,000	0.8	111,800	73,100	184,900	8.6
Djibouti	3.1	100	100	200	2.0	800	600	1,400	10.3
Equatorial Guinea	3.2	300	100	400	1.7	3,300	1,800	5,100	14.8
Eritrea	2.4	500	300	800	1.1	5,700	3,600	9,300	9.4
Ethiopia	...	17,000	9,800	26,800	1.3	190,700	153,300	344,000	12.4
Gabon	7.9	500	200	700	1.3	6,000	4,200	10,200	12.8
Gambia	2.4	0	0	0	0.0	500	300	800	5.6
Ghana	2.3	2,800	2,100	4,900	1.0	29,900	27,100	57,000	9.1
Guinea	1.5	1,900	1,300	3,200	1.8	20,300	18,800	39,100	14.8
Guinea-Bissau	3.8	100	100	200	0.8	2,100	1,300	3,400	9.7
Kenya	6.1	3,600	2,900	6,500	0.3	34,100	39,500	73,600	2.8
Lesotho	23.2	1,500	800	2,300	1.1	17,200	12,400	29,600	10.7
Liberia	...	400	100	500	0.6	8,800	5,100	13,900	11.7
Madagascar	0.5	1,900	1,200	3,100	2.0	21,500	18,900	40,400	16.6
Malawi	14.1	6,600	4,400	11,000	0.8	75,900	71,000	146,900	8.1
Mali	1.7	900	600	1,500	0.9	9,900	9,400	19,300	8.5
Mozambique	16.1	7,900	5,900	13,800	1.1	90,900	90,000	180,900	10.2
Namibia	19.6	900	400	1,300	0.9	10,400	7,500	17,900	9.2
Niger	1.1	1,200	700	1,900	2.3	12,700	9,600	22,300	16.4
Nigeria	3.9	24,400	7,900	32,300	0.9	297,500	149,200	446,700	9.2
Rwanda	3.1	1,600	1,100	2,700	0.6	16,900	15,700	32,600	5.6
Sierra Leone	1.6	400	300	700	1.1	4,900	2,900	7,800	9.2
South Africa	18.8	33,700	15,500	49,200	1.2	357,200	213,500	570,700	10.4
Sudan	1.6	4,100	1,000	5,100	1.9	48,500	15,200	63,700	15.7
Swaziland	33.4	900	200	1,100	0.8	11,800	5,700	17,500	9.7
Togo	3.2	800	400	1,200	0.9	10,100	5,600	15,700	8.7
Uganda	6.7	1,200	400	1,600	0.1	15,600	13,500	29,100	1.3
United Republic of Tanzania	6.5	13,100	8,700	21,800	0.8	153,800	145,100	298,900	8.4
Zambia	17.0	5,300	2,500	7,800	0.6	65,800	47,000	112,800	6.9
Zimbabwe	20.1	9,400	4,100	13,500	0.6	125,100	93,500	218,600	7.9
Asia									
Cambodia	1.6	1,500	24,700	26,200	11.1	20,700	30,600	51,300	16.6
China	0.1	59,000	205,700	264,700	17.5	733,100	380,900	1,114,000	46.4
India	0.9	65,300	435,100	500,400	7.7	740,600	537,200	1,277,800	14.9
Myanmar	1.3	3,200	47,400	50,600	13.8	36,200	55,600	91,800	17.9
Thailand	1.4	1,200	74,500	75,700	7.9	23,200	64,900	88,100	7.9
Latin America and the Caribbean									
Bahamas	3.3	0	0	0	0.0	100	100	200	2.1
Barbados	1.5	0	0	0	0.0	0	-10	-10	-0.3
Belize	2.5	0	40	40	1.7	400	140	540	14.8
Brazil	0.5	2,100	600	2,700	0.5	23,200	8,800	32,000	4.7
Dominican Republic	1.1	700	100	800	0.7	7,300	1,500	8,800	6.5
Guatemala	0.9	400	100	500	0.7	3,600	1,000	4,600	4.9
Guyana	2.4	0	0	0	0.0	700	300	1,000	4.7
Haiti	3.8	1,500	800	2,300	0.5	17,200	13,200	30,400	5.5
Honduras	1.5	300	100	400	0.4	4,200	2,700	6,900	5.8
Jamaica	1.5	100	0	100	0.4	800	600	1,400	4.5
Suriname	1.9	0	20	20	0.5	100	40	140	3.0
Trinidad and Tobago	2.6	100	100	200	0.8	1,700	900	2,600	8.0
Countries in developed regions									
Russian Federation	1.1	17,900	5,200	23,100	2.6	180,900	79,600	260,500	17.7
Ukraine	1.4	4,000	1,200	5,200	1.3	39,200	17,200	56,400	10.8
United States	0.6	1,500	0	1,500	0.2	22,000	3,800	25,800	2.8

Difference in cumulative mortality losses to 2020				Country
To 2020				
Men	Women	Total	Difference in losses as a proportion of the total labour force (%)	Alphabetical order by region
				Sub-Saharan Africa
77,700	72,700	150,400	25.7	Angola
19,900	14,200	34,100	21.0	Benin
52,200	40,200	92,400	22.8	Botswana
68,100	70,500	138,600	17.6	Burkina Faso
64,000	74,000	138,000	20.3	Burundi
135,000	102,800	237,800	27.7	Cameroon
71,000	62,000	133,000	24.1	Central African Republic
56,500	54,200	110,700	27.4	Chad
31,100	22,200	53,300	20.2	Congo
188,000	96,600	284,600	25.4	Côte d'Ivoire
355,400	278,800	634,200	25.1	Democratic Republic of the Congo
2,600	2,000	4,600	28.2	Djibouti
10,700	7,200	17,900	42.2	Equatorial Guinea
17,700	13,300	31,000	26.1	Eritrea
575,400	548,600	1,124,000	33.8	Ethiopia
18,800	16,300	35,100	36.4	Gabon
1,500	1,200	2,700	15.7	Gambia
92,400	99,600	192,000	26.8	Ghana
63,400	70,400	133,800	40.9	Guinea
6,500	5,000	11,500	26.6	Guinea-Bissau
97,600	138,800	236,400	7.7	Kenya
50,700	43,900	94,600	30.5	Lesotho
27,500	20,500	48,000	34.5	Liberia
66,700	69,500	136,200	44.4	Madagascar
242,500	270,100	512,600	23.2	Malawi
30,700	35,300	66,000	24.1	Mali
287,400	332,200	619,600	29.4	Mozambique
34,700	29,700	64,400	29.7	Namibia
38,600	35,300	73,900	41.8	Niger
927,000	586,300	1,513,300	26.4	Nigeria
51,900	57,600	109,500	16.4	Rwanda
14,500	10,300	24,800	25.2	Sierra Leone
1,101,700	740,800	1,842,500	31.1	South Africa
148,900	54,300	203,200	42.4	Sudan
36,400	19,600	56,000	27.5	Swaziland
32,300	21,000	53,300	24.8	Togo
52,800	58,300	111,100	4.3	Uganda
481,000	540,500	1,021,500	24.6	United Republic of Tanzania
206,900	171,500	378,400	19.6	Zambia
390,900	366,100	757,000	24.1	Zimbabwe
				Asia
67,400	28,700	96,100	26.2	Cambodia
2,391,400	664,300	3,055,700	101.6	China
2,270,000	457,800	2,727,800	28.0	India
110,600	43,800	154,400	24.9	Myanmar
78,400	39,500	117,900	10.2	Thailand
				Latin America and the Caribbean
700	700	1,400	14.7	Bahamas
200	50	250	7.7	Barbados
1,400	500	1,900	44.2	Belize
74,400	35,100	109,500	14.6	Brazil
22,100	5,900	28,000	19.7	Dominican Republic
10,900	3,700	14,600	13.5	Guatemala
2,100	1,200	3,300	14.9	Guyana
55,200	49,000	104,200	16.7	Haiti
14,600	11,500	26,100	18.9	Honduras
2,600	2,100	4,700	13.9	Jamaica
400	130	530	12.3	Suriname
5,300	3,100	8,400	24.7	Trinidad and Tobago
				Countries in developed regions
496,500	281,200	777,700	47.8	Russian Federation
109,200	61,600	170,800	33.2	Ukraine
80,900	20,100	101,000	11.0	United States

Main table 11: **Projected cumulative mortality losses to the labour force as a result of HIV/AIDS, and equivalent proportion of the labour force, difference between vaccination and no vaccination scenarios, by sex, 60 countries, to 2010-2020**
Summary

Region	HIV prevalence	Difference in cumulative mortality losses to the male, female and total labour force to 2010 and 2015							
		To 2010				To 2015			
	Estimated prevalence in persons aged 15 to 49 years (%) 2005	Men	Women	Total	Difference in losses as a proportion of the total labour force (%)	Men	Women	Total	Difference in losses as a proportion of the total labour force (%)
Sub-Saharan Africa (40 countries)	6.4	173,700	87,600	261,300	0.85	2,004,400	1,416,100	3,420,500	8.46
Asia (5 countries)	0.5	130,200	787,400	917,600	9.56	1,553,800	1,069,200	2,623,000	20.32
Latin America and the Caribbean (12 countries)	0.8	5,200	1,840	7,040	0.52	59,300	29,270	88,570	5.25
Countries in developed regions (3 countries)	0.8	23,400	6,400	29,800	1.40	242,100	100,600	342,700	11.73
Total (60 countries)	1.4	332,500	883,240	1,215,740	2.78	3,859,600	2,615,170	6,474,770	11.17

Difference in cumulative mortality losses to 2020				Region
To 2020				
Men	Women	Total	Difference in losses as a proportion of the total labour force (%)	
6,228,600	5,253,400	11,482,000	24.5	Sub-Saharan Africa (40 countries)
4,917,800	1,234,100	6,151,900	41.3	Asia (5 countries)
189,900	112,980	302,880	16.2	Latin America and the Caribbean (12 countries)
686,600	362,900	1,049,500	34.3	Countries in developed regions (3 countries)
12,022,900	6,963,380	18,986,280	28.43	Total (60 countries)

International Labour Office

This new report from the ILO presents updated global estimates of the impact of the HIV/AIDS epidemic on the world of work, the labour force and the working-age population in 60 countries affected by the epidemic in Sub-Saharan Africa, Asia, Latin America and the Caribbean, and in countries of the developed regions. The effects of the epidemic on employment growth, the persistence of child labour, the sexual exploitation of children and youth, and the need for youth to have access to decent work are given particular attention. For the first time, projections of mortality losses and the effects of illness on the labour force and the working-age population take account of increased future access to antiretroviral treatment. Special scenarios were developed by the ILO to illustrate the benefits to the labour force if an HIV vaccine is created, the survival of labour force participants who have access to antiretroviral therapy, and the gains in worker productivity due to antiretroviral treatment over the short term.

The results of the ILO projections underscore the critical importance of multiple and vigorous action against HIV/AIDS in the world of work. A vaccination – at the moment entirely hypothetical - could have an extraordinary impact on the epidemic, but there is no substitute to providing antiretroviral treatment to workers who are already living with HIV/AIDS. Moreover, the vast majority of impending deaths in the long term must be averted through intensification of preventive behaviours as well as access to treatment that can significantly benefit the global labour force and the world of work. Even if prevention is too late for millions of workers already living with HIV, there is now hope for their future. Each labour force life preserved represents a gain, as well as recognition of the fundamental rights of each and every working man and woman. In this regard, the report sharply focuses on the need to implement legal and policy instruments to combat child labour, especially its worst forms that directly expose children and youth to the risk of HIV.

ILOAIDS
The ILO Programme on HIV/AIDS and the World of Work
4 route des Morillons
CH-1211 Geneva 22
Switzerland

Tel: +41 22 799 6486
Fax: +41 22 799 6349
E-mail: iloaids@ilo.org
Web: www.ilo.org/aids

UNAIDS
JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS
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ISBN 978-92-2-119070-7