Population Issues and the PRSP Process in Malawi, Mozambique and Zambia

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POPULATION ISSUES AND THE PRSP PROCESS IN MALAWI, MOZAMBIQUE AND ZAMBIA

INTRODUCTION

Across these three desperately poor countries the stark picture is that at least one in seven adults will die because of HIV/AIDS. Because of the impact of HIV/AIDS, life expectancy at birth is ten years shorter than it was a decade ago (Table 1). The numbers of people living with HIV/AIDS is 1,200,000 in Zambia; 1,100,000 in Mozambique and 850,000 in Malawi. Adult HIV prevalence rates are approximately 14% for Malawi, 12% for Mozambique and 17% for Zambia. At these levels HIV/AIDS inevitably impacts on every member of the community every day.

In these circumstances it is difficult to believe that economic planning can go on as normal, simply including HIV/AIDS under the Health Chapter of vital planning documents such as the Poverty Reduction Strategy Papers (PRSPs) prepared for national planning and to meet the requirements of the World Bank. But this is what is still happening. The planners have yet to ask the crucial question: 'Given these very high levels of HIV/AIDS what should our economic plans look like ?'

Table I Basic Indicators for the Three Countries circa 2003

Indicator	Malawi	Mozambique	Zambia
Total Population	11.0	18.8	10.4
Life Expectancy 2002	38	39	33
Life Expectancy 1990	47	57	44
Persons with [Num HIV/AIDS [%	850,000 8	1,100,000 6	1.200,000 12
Adult HIV/AIDS Prevalence	14%	12%	16%
Number of AIDS orphans	500,000 +	418,000	630,000
PPP Per Capita GDP US $ [GNI]	$580 [$170]	$1,059 [$210]	$840 [$380]
% of income poorest 20%	4.9	6.5	3.3
% of income richest 20%	56.1	44.6	56.6
% below $1 a day [below $2]	42 [76]	38 [78]	64 [87]
% Child malnutrition [stunted]	28 [47]	25 [49]	26 [36]
UNDP HDI Rank range 1-177	165	171	164
Adult literacy %	62	47	80

Source: Where possible World Bank *World Development Indicators 2005*

HIV/AIDS SITUATION

HIV prevalence among women tested as antenatal clients in Mozambique clinics varied from 4% to 32% in 2000. The higher rates were found in the commercial corridors linking from the Port of Beira inland to Zimbabwe and the corridor from Maputo to South Africa (both South Africa and Zimbabwe have significantly higher rates than Mozambique, which was protected from the spread of infection for some time by its isolation during the civil war). Returned refugees, most of whom settled in the Central region appear to have higher rates. Male circumcision and other Muslim practices appear to reduce transmission. Certainly, the Northern Provinces are mostly Muslim and have lower rates (Barreto et al. 2002). They also face the problem that even government officials believe that HIV issues are only for other regions (Barradas and Arnaldo 2004). There would appear to be no available evidence for Mozambique which suggests that any of the interventions attempting to stem the spread of HIV/AIDS infections has had any significant impact (Keusen 2000; Bila 2003).

On paper, Malawi has an excellent structure to combat HIV/AIDS that includes village AIDS committees to facilitate local mobilization and activities but these generally have not been activated or supported by either communities or outside agencies. In 1992 Malawi became the first African country to develop a policy statement and guidelines on the care of orphans. The guidelines again emphasize community-based responses, but the ability of the communities to cope with even the most modest demands of the growing number of orphaned children, now more than half a million in a total population of some eleven millions, i.e. roughly one orphan per six adults, prevents full and effective implementation (CHGA 2004:31).

Zambia has good data on HIV prevalence from testing in the 2001-2002 Zambian Demographic and Health Survey [ZDHS]. Overall 16% of those tested were found to be positive with proportions of 18% for women and 13% for men [at ages 15-19 this was 7% for females and 2% for males]. Urban rates were 26% for women and 19% for men as compared with rural rates of 12% for women and 9% for men. The peak rate is 43% amongst urban women aged 30-34. [Prison data show 25% of male inmates to be HIV positive]. The data from the ZDHS are a more accurate indicator that the more commonly used Antenatal Centre [ANC] surveillance data, which give a 19% figure, since the ANC data only represent pregnant women who are by definition recently sexually active. ANC testing also has a clear urban bias. Comparing data from the 1996 and 2001-2 ZDHS shows that in that brief interval of time adult mortality had risen by somewhere between 15% and 25% depending on the reference period. Adult mortality is some 25% higher in urban as compared to rural areas of Zambia. Orphanhood is an even worse problem in Zambia than in Malawi with some 630,000 orphans in a population of 10.5 millions, SCOPE OVC the project for Strengthening Community partnerships for the Empowerment of Orphans and Vulnerable Children in Zambia directly helps support 137,000 children. Charitable organizations have stressed the problems of elderly grandparents caring for young children. In one case cited, which is not a-typical of this literature, the grandfather aged 84 and his two wives aged 76 and 78 had had 9 children, 8 were dead 1 was

dying and they had left a total of 32 orphaned grand-children aged 2 to 16. [which suggests that a generation has been lost somewhere] (see www. Avert.org). In fact this example raises a more general issue in relation to orphanhood. Given the high levels of fertility starting in their teens, presumably African grandparents, and especially grandmothers, are not necessarily old and worn out?

A number of features relating to HIV/AIDS are common to all three countries. There is a widespread tendency to assume that if people are well-informed about how HIV/AIDS is transmitted they will change their high-risk behaviour. This is as unreasonable as expecting smokers in the West to be influenced by the labels on cigarette packets, especially since sexual behaviour is far more core to peoples' basic needs than smoking. Another common factor has been a generally unrealistic approach on the part of many politicians and church leaders who have tended to hope that the issue will go away. Many African church leaders experience a life of promoting values that the bulk of their congregations do not accept. One Irish Jesuit priest with decades of experience on the region said he did not think he had ever met an African who genuinely believed that chastity was a virtue. Surveys in Mozambique and Malawi have shown that a majority of men believe that a man who does not have sexual intercourse for more than a month becomes either impotent or ill or both. Traditionally there were a range of initiation practices (some of which were very conducive to the spreading of sexually transmitted infections [STIs]) and certainly parents did not discuss sexual behaviour with their children. Now initiation has largely disappeared, but nothing has replaced it. One study in Malawi showed that 66% of children learnt about HIV/AIDS in school but that 75% of teachers felt most uncomfortable discussing it and wanted to evade the issue. Another common feature is a lack of understanding by finance ministers and equivalent officials who tend to think of HIV/AIDS costs in terms of treatment with maybe a cursory reference to lost production but no deeper understanding which, given that the World Bank approach has been little more sophisticated until recently, they can hardly be blamed for (McPherson 2003).

GENDER ISSUES

In all three countries the proportion of those who are HIV positive who are females is around 56%. Reading the AIDS literature one gets a very negative picture of the status of women in Southern Africa. This is partly because the writers are trying to make a point about the difficulties which women face in negotiating safe sex: certainly there is little reporting of the many very strong women across the region. One possible measure of female status is the sex-ratio of HIV/AIDS infections among young people, but it has to be kept in mind that this is influenced by a greater biological susceptibility to infection among young women as well as the social disadvantages attached to their status. Certainly, for young people significantly more young women than young men are HIV positive. In Zambia blood tests show that at ages 20-24 16% of women but only 4% of men are HIV positive This is to a large degree because young women are sexual partners (often wives) to older men who have had a range of sexual partners. In Malawi where girls are generally considered to be clearly inferior to boys, girls who borrow from boys in their class the text-books they can't afford are expected to repay with sex (Clarke 2000). In Mozambique 60% of girls are married by age 18 and data show that the wife's risk of infection increases significantly if the husband is three or more years older (Barradas and Arnaldo

2004:5). Data for Mozambique also show that, largely due to their lower education levels, women are 24% less likely to feel at risk of contracting HIV/AIDS than their male counterparts.

Few women have the power to negotiate for the use of condoms in sexual relationships. In commercial relationships men are prepared to pay a 50% premium to avoid condoms. In Lusaka, the capital of Zambia, in October 2003 some 500 protestors marched to protest the fact that over 400 young girls had been raped in the previous three months – in many cases because of the perverse belief that sleeping with a virgin will actually cure masculine HIV/AIDS. It is not co-incidental that females are always on the wrong end of these beliefs. In Malawi a combination of traditional beliefs and the perverse influence of male-led churches means that it is almost unthinkable to report a rape since the woman is considered to be the one to blame. In 2003 the Malawi Human Rights Commission [MHRC] confirmed that the practice of 'kupimbira', which allows poor families to sell their daughters to rich elderly men, had resurfaced during the 2002 famine. Church groups are now campaigning against 'this gruesome practice which enslaves young girls to elderly men against their will … This is a very archaic and inhuman practice that should not be tolerated in this democratic dispensation'. One case proved before the MHRC involved a 13 year old girl sold for $44, another price indicator which does not appear in the economic literature. An additional result of the MHRC investigation was the discovery that up to that point HIV/AIDS education in the area had only been in the national languages but not in Ngonde, which is what people actually speak! (SAHIMS 2003)

Single women have been strongly affected by HIV/AIDS. Many have been abandoned because they are infertile or HIV-positive; others are widows of men who have died of AIDS. Many have a number of children (not necessarily their own) in their care. Many are obliged to engage in some form of sex trade for money to make ends meet. Even those who are not prostitutes are viewed with suspicion and are often accused of being the cause of AIDS. As a consequence they are often shunned to the point where they are excluded from much rental housing.

The Zambian Human Resources Trust

Is a NGO who supports the formation of 'Single Women's Associations' (SWA) in the low income housing compounds of Lusaka. A typical SWA formed in Matero Compound in 1997 has 20 members who each contribute some $1.50 a month to buy chickens. The women sell the eggs and put the proceeds in the bank to use as emergency loans and grants for members in need. After a year the SWA had $900 in the bank. More significantly, the members felt a much greater control over their lives including with whom and how they have sex. CIDA- Southern African AIDS Training Project.

In terms of economic planning in general there are a range of difficult decisions to be made about how far programmes should target men, women or both. The argument for targeting men is that they are expected to be the providers and will get into trouble if underemployed (Ware 2005). Yet it is the men with money who are responsible for the commercial sex trade which does so much damage. The argument for targeting women is that this is unquestionably the best way to secure the welfare of the children. Programmes which attempt to target both genders often fall between two stools because of the considerable gulf between the lives of the two sexes. This is a region where, for example, there are male crops (often grown for cash) and female

crops (usually grown for home consumption). What is important is that a conscious decision should be made about the gender focus of programmes, based on the available evidence not just on the assumption of male bureaucrats that all good things should be targeted at male household heads. To give just one example, in many areas women provide 80% of the agricultural labour inputs. In these areas agricultural programmes aimed at men (often using exclusively male agricultural extension workers) are both highly discriminatory and most unlikely to succeed. Traditional societies are not just highly skewed in terms of giving the majority of public power to males, they are also highly skewed in favour of older males, often giving little role to young men. This was one reason why the ability to go and work in the mines in South Africa (which has now largely disappeared due to the staggering levels of Black unemployment within South Africa) provided an excellent social safety valve. One planning issue which the governments of all three countries need to give very careful consideration to is the question of how the young men are to be kept occupied. Countries which have large proportions of underemployed young men are prone to civil unrest and even war (Ware 2005).

SOCIAL CAPITAL

In recent years the West has become familiar with the concept that 'social capital makes us smarter, healthier, safer, richer, and better able to govern a just and stable democracy' (Putnam 2000:290). In the context of poor countries social capital is a vital resource for the poor. Unfortunately, we know little about why it is that in some contexts social capital survives and even thrives among the poorest whilst in others it implodes under the pressure of the demands placed upon it. For South Africa we have a classic description of the failure of social capital to deliver in the context of HIV/AIDS (Campbell 2004). One probable factor was that where so many people are immigrants into the town coming from different places, and with little commitment to their new home, there is little opportunity for social capital to develop.

1. **Box 1: Pit Farming -A Farmer-Initiated Response from Zambia**

In the Plateau area of the Southern Province of Zambia, farmers have initiated what is called pit farming. This involves farmers digging round holes (120cm or 180cm in diameter and 60cm deep) and then filling them with a mixture of organic material (household thrash, crop residues, animal manure and topsoil) for composting over a period of 2-3 months.

Crops are then planted under mono- or mixed cropping conditions e.g. 20 maize plants per hole if 180 cm in diameter or 10 per hole if 120cm in diameter. Approximately 435 holes are dug per 2500 square metres if 180 cm or 985 holes if 120 cm. Holes can be used for 4-5 years before refilling with organic material. Some farmers intercrop legumes such as cowpeas or groundnuts with maize or sorghum in their pits. Fruit tree planting (mangoes, oranges, bananas) in pits is also practiced.

This method of crop production is categorised under "conservation tillage" and conserves water, labour (through minimal cultivation and weeding), and reduces the risk of soil erosion hazards through minimal disturbance/opening of surface vegetation. Weeding is readily done by hand or slashing.

Pit farming is spreading rapidly through farmer-to-farmer extension in the Southern Province. Though very labour intensive for initial layout and digging, pit farming saves appreciably on labour in the subsequent planting seasons. For households affected by HIV/AIDS, pooling of village labour, including available youth, is practiced to meet the labour needs in the initial pit digging and filling.

Source: D. Hesselbach, GTZ Agric. Advisor, ASSP Project, Zambia

POVERTY SITUATION

All three countries are very poor. On the UNDP Human Development Index all three rank below 160th out of the 177 ranked countries. Poverty can be viewed in two different ways: available income or overall access to resources. Looking at income in terms of GDP per capita (PPP US$) then Mozambique is significantly richer with $1, 059 than Zambia with $840 or poor Malawi with only $580, which makes it the possibly the second poorest country in the world coming after Sierra Leone with $520. [Unadjusted GNI figures are much more similar, see Table 1]. On the other hand, in terms of adult literacy, which is such a crucial resource for being able to make effective use of the available resources, the percentages literate are 80% for Zambia 62% for Malawi and a sad 47% for Mozambique.

Even before the HIV/AIDS epidemic, Malawi was a very poor country, where the poorest always went hungry for several months a year, and also afflicted with recurrent episodes of food insecurity in which hunger became much more widespread. In 2002 almost a third of the population (i.e. 3.2 million people) required food assistance. Across Malawi 65% of the population are unable to meet their daily consumption needs (NSO 2000). The richest 20% of the population consumes 47% of goods and services, compared with only 7% by the poorest 20%. This reflects the poverty of the country as much as the rapacity of the rich. Agriculture is responsible for 40% of GDP. Manufacturing, financial and professional services have all shown declines in their share of GDP, raising concerns that the domestic capacity to produce goods and services has deteriorated significantly, In 1998 Overseas Development Assistance [ODA] was equivalent to 26% of GDP. In contrast only 7% of Zambia's GDP comes from ODA.

Poverty is linked with HIV/AIDS through many routes including women selling their sexual favours, in the case of Malawi this may be literally just for food (see 'Risking Death for Survival: Peasant Responses to Hunger and HIV/AIDS in Malawi' by Bryceson and Fonseca 2005 and 'Buying Sex for Three Sweet Potatoes' by Shah 2002). Villagers in many parts of Malawi used to depend on cash income from men who went away to work in the mines in South Africa. Now that this path is no longer open, women are increasingly having to take up the burden through selling their labour in a mutation of the traditional 'ganyu' agricultural labour system where they may be required to provide sexual services as well as farm labour. Understandably the men feel disempowered and this leads to further mistreatment of their unfortunate wives.

For the Northern province of Zambia, which has a relatively low 10% HIV prevalence rate, there is detailed information on the impact of HIV/AIDS on food security (ILOHAH Survey 2004). This clearly shows that whatever the HIV/AIDS burden on the household, households with a male head fare significantly better than female headed households and that on average the impact of HIV/AIDS vulnerability is between two and three months of food security.

Table 2 Food Sufficiency and HIV/AIDS in Northern Zambia

Vulnerability Category	Sex of Household Head	Average Months of Food Self-sufficiency
Keeping PLWA & orphans	Female	7.0
	Male	8.4*

Keeping PLWA	Female	7.0
	Male	8.0
Keeping orphans	Female	7.2
	Male	8.2
Non-vulnerable	Female	7.7*
	Male	10.2
Total	Both	7,7

* Less than 20 persons in category. Total Sample 317.

Source: ILOHAH Table 11.1 Figures recalculated as originals incorrect.

The 'New Variant Famine' hypothesis proposes that there is now an interaction between drought and other traditional famine shocks and the impact of the HIV/AIDS epidemic. The evidence suggests that rural death rates have not yet reached the point where the full impact will be felt but that there may already be a new problem for peri-urban areas (De Waal 2004; Larson et al. 2004; Mather et al. 2003; SADC VAC 2003).

One particular source of poverty which is linked to HIV/AIDS is that associated with orphanhood. One thing which the available data now shows is that the impact of orphanhood depends very much on the cultural context, Thus the percentage of children with at least one parent/ double orphans who are in school aged 10-14 is 87/81 in Malawi, 68/32 in Mozambique and 77/68 in Zambia (Source: DHS Surveys 1997-2001). It is not clear why orphans should be so much worse of in Mozambique although it may be related to disruptions in kin groups still felt as a consequence of the war although it ended in 1992. One small orphanage in Mozambique is called 'Nhatua Zamala' which means 'the suffering is finished'. This was a good hopeful name during the war but has a more hollow ring today when orphanhood is growing and there is no end to the AIDS casualty list in sight. As one Mozambican mother said 'At least with the war we knew that one day, some day it would end'.

Mozambique is divided into three regions (Northern, Central and Southern) that are distinct in terms of the level of development and access to resources, infrastructures and services. The Southern Region is the most developed and the Northern the poorest. For example, in 1998 the United Nations Human Development Index (HDI) score and the Real Gross Domestic Product (GDP) per capita in the Southern Region were twice as high as in Northern and Central Regions. Less than 25 % of the population in Northern and Central Regions had access to health services (including antenatal care, childbirth in a maternity ward or health centre, doctor, nurse or midwife in the village), compared with half in Southern Region (Mozambique 1998).

According to the second population census conducted in 1997, more than 60% (45% for males and 74% for females) are illiterate and only 29% live in urban areas. Life expectancy at birth is 42.3 years and infant mortality rate is 146 deaths per 1000 live births (INE 1998). Only 39% (50% males and 29% females) of the population spoke Portuguese, the country's official language. After gaining its independence from Portugal in 1975, Mozambique went through 16 years (1976-1992) of civil war between the socialist government of ruling FRELIMO (Front for the Liberation of Mozambique) and the RENAMO (National Resistance Movement) opposition

movement. Civil war and the socialist economic development model of central planning with a policy of rural collectivisation and state monopoly of all marketing and financial services, adopted after independence, led to economic hardship in the 1980s. In response, in 1987, the Mozambican government introduced an Economic Rehabilitation Program (PRE), funded by the International Monetary Fund and the World Bank, which reversed the declining GDP of the late 1980s to high positive growth in the 1990s (Government of Mozambique and UNICEF 1993). Despite exceptional GDP growth, especially since the end of the civil war in 1992, Mozambique remains one of the world's poorest countries.

In 1996/97 Mozambique conducted its first nationally representative household survey, which allowed the development of a detailed profile of poverty across the country. The analysis of the 1996/97 survey indicated that 69% of the Mozambique's population was living in households with a consumption per capita less than the poverty line with poverty more prevalent in rural than in urban areas (MPF 1998). The results of the second household survey conducted in 2002/3 shows that the poverty headcount index decreased to 54%, corresponding to redaction of about 15 percentage points in five years but the profile of poverty remained almost the same (MPF 2004).

The regional desegregation of the poverty index showed that the incidence of poverty was highest in central region, while there were no significant differences between northern and southern regions. Significant disparities were observed when the poverty index was disaggregated to the provincial level (see table 3). In 1996/7 the poverty headcount ranged from 48% in Maputo City to 88% per cent in Sofala; in 2002/3 the range was from 46% in Maputo City to 80% in Inhambane. The biggest fall in poverty incidence was observed in Sofala (the province with the highest poverty index in 1996/7) from 88% per cent to 48% and the smallest decrease in Inhambane from 83% to 80%. In regional terms, the central region reveals larger improvements than those observed in other regions, with its poverty incidence dropping 15 percentage points, from 74% to 59% between 1996/7 and 2002/3.

Poor households tend to be larger than non-poor households (4.8 persons poor; 3.6 persons for non-poor in 1996/7) with the difference being more pronounced in rural areas (5.5 for the poor, 3.3 for non-poor) than in urban areas (6.0 for the poor, 4.7 for non-poor) (MPF 1998:64). The dependency ratio, a reflection of high fertility rate, is higher in poor households than in non-poor households.

The MPF (2002) disaggregated the incidence of poverty to the district level and found that the incidence varied between districts in the same province: i) the incidence of poverty was higher in less densely populated districts but the poor where concentrated in high density areas within these districts; ii) districts with good roads had lower incidence of poverty than those with bad roads; iii) districts in hinterland had higher incidence of poverty than the coastal districts; iv) districts with high incidence of poverty had low capacity to produce food due to climate conditions and unproductive soils.

The incidence of poverty in Mozambique is exacerbated by the HIV/AIDS pandemic. In the next few years, AIDS is expected to affect the economically active

population in Mozambique and will certainly have adverse effects on the poorest and most vulnerable segments of the population. On one hand poverty contributes to the spread of AIDS as poor women may engage in risky sexual behaviour (such as commercial sex) as a survival strategy; on the other hand HIV/AIDS my undermine productivity and economic growth which is necessary for sustainable poverty alleviation. In Mozambique studies on the linkage between poverty and HIV/AIDS are lacking. Most of the research on HIV/AIDS in Mozambique has limited geographic coverage and have focused mainly on knowledge and behaviour and the impact of the epidemic on education and labour force of several companies (Barrabas and Arnaldo 2003).

The country is one of the most affected countries in the world, with the HIV/AIDS prevalence rate estimate at 13.6 per cent in 2002 and projected to reach 17% by 2010 (INE at al. 2004). Since the first case of AIDS in the country in 1986 almost half a million people have died of AIDS and more than 300 thousand children below 18 years of age have become orphans (INE at al. 2004) and it is estimated that 17 percent of schoolteachers will be lost to HIV/AIDS by 2012 (Barradas and Arnaldo 2003). The life expectancy at birth of 44 years in 1999, projected to reach 50 years by 2010, may drop to 36 years if the current infection rate continues (Barradas and Arnaldo 2003; INE at al. 2004).

Table 3 shows that as the poverty index, HIV/AIDS prevalence rates vary across regions and provinces. The regional variation of poverty index in 1996/7 seems to match the regional pattern of HIV/AIDS in 2002 with both the incidence of poverty and of HIV/AIDS being highest in central region, but at the provincial level the relationship is not clear: for example, Inhambane province is the second poorest in 1996/7 and the poorest in 2002/3 but shows one of the lowest prevalences of HIV/AIDS in the country.

Table 3: Poverty headcount index by region and province, Mozambique 1996/7 and 2002/3 and HIV prevalence 2002

Region/province	Poverty index[a]		Difference	HIV prevalence rate 2002 (%)[b]
	1996/7	2002/3		
National	69.4	63.2	-6.2	13.6
Urban	62.0	61.3	-0.7	-
Rural	71.3	64.1	-7.2	-
Northern	66.3	68.1	1.8	8.4
Central	73.8	59.2	-14.6	16.7
Southern	65.8	63.6	-2.2	14.8
Niassa	70.6	61.2	-9.4	11.1
Cabo Delgado	57.4	72.3	14.9	7.5

Nampula	68.9	68.1	-0.8	8.1
Zambézia	68.1	58.6	-9.5	12.5
Tete	82.3	71.6	-10.7	14.2
Manica	62.6	60.2	-2.4	19.0
Sofala	87.9	48.4	-39.5	26.5
Inhambane	82.6	80.1	-2.5	8.6
Gaza	64.6	58.6	-6.0	16.4
Maputo province	65.6	66.9	1.3	17.4
Maputo City	47.8	45.5	-2.3	17.3

Source: [a] MPF (2002:21); [b] Grupo Técnico Multisectorial (2003 :Table 4)

ECONOMIC PLANNING AND HIV/AIDS

Only an economist sitting in an air-conditioned office could believe that a new and fatal disease infecting 20% of the population will have only a minor effect on macroeconomic performance. Yet this is the accepted wisdom (Kambou et al 1992; Cuddington 1993; Ainsworth and Over 1994; Cuddington and Hancock 1994; Brown 1996). This view was encapsulated in the World Bank's study *Confronting AIDS Public Priorities in a Global Epidemic*, which was published in 1999. This study estimated that for the ten African countries with the highest rates of HIV/AIDS the decline in the annual average growth of per capita GDP out to 2025 would be about 0.3% [growth without AIDS would be about 3.5%]. This result was driven by the assumption that those who would die would be the workers with the fewest skills. "The loss of large numbers of relatively unproductive workers was not seen as a major threat to productive capacity" (McPherson 2003:2). One issue is that most farmers in the rural areas are classified as unskilled and readily replaceable. Yet to wrest a living and feed the household with enough left over to pay for school fees, clothes and agricultural inputs is actually skilled work which requires considerable knowledge of local conditions and of coping strategies to meet variations in climate, locust plagues and changes in relative crop prices. In Zambia heads of households in AIDS affected families find that they have to respond to loss of work-power among adults by teaching and supervising teenagers to take over the fields. (Waller 1996)

More recent models pay more attention to changes in population and labour supply (Arndt 2002; Bonnel 2000; Haacker 2002). This reflects the intensification of the epidemic. These models also include a broader range of retrogressive effects such as reductions in human capital, declining savings and investment rates, disintegrating households, increasing poverty, falling labour productivity and impaired institutions. But even with all these additions the models still suggest that the aggregate economic impact of HIV/AIDS will remain modest. For example a study of Mozambique estimated that HIV/AIDS would reduce the annual growth of per capita income from 3% to 2-2.7 %. In Malawi the estimated cumulative loss of GDP by 2010 due to HIV/AIDS was projected to be circa 10%. A study using data for some 70 developing countries estimated that there was a relationship between the HIV

prevalence rate and the loss of GDP growth per annum such that a prevalence rate of 5% would lose 0.4% up to a 30% prevalence rate losing 1.4% per annum.

Thus numerous studies over the past ten years have estimated the probable impact of HIV/AIDS on the growth rate GDP, They have found reductions of 0.5% to 2.6% which are essentially small and equivalent to what could be caused by changes in economic management or fiscal policy (Greener 2002). This provides an excellent example of the weakness of GDP as a measure of well-being. Even when 20% of the adult population has a fatal illness this is forecast to have a barely measurable impact on the GDP. Yet studies at every level below the national economy show that governments, firms and households will all suffer marked disadvantage as a result of HIV/AIDS as tax revenues fall and government expenditures rise; employment costs multiply (Jones 1997; Barkes-Ruggles et al 2001) and increasing numbers of families fall into deep poverty (Kwaramba 1997; Tibaijuka 1997). The World Bank estimates that the costs of care for each person with HIV/AIDS is roughly 2.7 times per capita GDP (World Bank 1997). A Zambian study showed that in HIV/AIDs affected households adults lost 952 hours in personal sickness (as compared with 518 hours in unaffected households). In addition there was the time caring for others who were sick and attending funerals which amounted to over 900 hours in affected households and 300 hours in unaffected households (Bangwe 1997).How can this not have an impact on the overall economy? Families including people living with AIDS which are a significant proportion of all families will be cutting down expenditure on all non-essentials to focus on health expenditures for the sick and educational expenditures for the young; they are not going to be going out and buying furniture or other consumer durables. There is a need for a better measure of socially productive economic activity instead of a GDP measure in which the manufacture of increasing numbers of coffins and the services of ever more grave diggers and professional mourners count as positives.

The models, many of which date from the early 1990s, do not generally factor in the extent to which people who are not themselves sick will have to move from participation in the paid/ productive labour force to unpaid care of the sick. Most studies also assume a peak infection rate of 25% which is already exceeded in a number of age groups in Southern African national populations. Macro-economic studies are proving to be probably unreliable and certainly unrewarding but policy makers still need to understand how the epidemic might undermine their economies and their budgets and also to understand the mechanisms involved so that they can endeavour to take appropriate counter measures. To take one example, there is general agreement that significant numbers of skilled and professional workers will die leaving gaps which will be difficult to fill. In such a situation it makes sense to consider definitions of qualifications and the length of time necessary to attain them. Rather than having a severe shortage of 3 year trained teachers would it be better to have more 2 or even 1 year trained teachers/ teachers aids? Should the immigration of staff with scarce skills be actively facilitated? If staff are spending 10% of their time attending funerals (Engh at al 2000) perhaps funerals will have to be restricted to weekends. Crucial factors in the models include the date and level at which HIV prevalence is expected to peak; the impact on labour productivity, savings and investment rates and changing patterns of government and business expenditures.

Economist have a particular view of the world as in 'there is no a priori reason to assume that the impact on GDP will be greater than that on population [growth]. For this reason, the impact on per capita GDP, or average incomes, may not necessarily be negative' (Greener 2002). Now Greener writes from his background of working in Botswana, where the same number of diamonds to be shared amongst a smaller number of people could certainly increase per capita wealth. The situation is very different in predominantly agricultural countries where for each person who dies of HIV/AIDS the flow on effects can be considerable in terms of the family's and the society's inability to maintain agricultural production at existing levels per capita. If the size of the population is declining as deaths outpace births then, were every thing else to remain constant, per capita incomes could rise. Although there is still considerable debate it would appear that wages did rise after the Black Death (Clark 2002).

The macroeconomic models assume that the loss of labour is heaviest among unskilled workers and that such workers are easy to replace. These models do not consider that most food production in these countries is by 'unskilled farmers' feeding their own families and that such workers are irreplaceable. In Zambia poor families affected by HIV/AIDS reduce the cultivated area and two-thirds even resort to zero tillage. Nine out of ten farmers are obliged to stop using fertiliser or to use too small amounts (Waller 1996). Even in the absence of HIV/AIDS, studies in Mozambique show that the biggest constraint on food production in the subsistence sector is already the lack of labour. Only 10% of arable agricultural land in Mozambique is used, although more than 75% of the population derive their principal livelihood from this sector, primarily as smallholder farmers. For Malawi and Zambia AIDS deaths have begun to accelerate since 2004 (though the figures are rubbery, for 2003 UNAIDS estimates 89,000 AIDS related deaths for Zambia or a range from 63,000 to 130,000. The figure for Malawi is 84,000 with a range of 58,000 to 120,000). No where outside Southern Africa has had experience of death rates like these, so it is very difficult to predict what impact they will have on the economy and the nation psyche. As early as 1993 the INDENI Petroleum Refinery in Zambia was paying medical expenses that exceeded its net profits and then there were funeral grants and pensions to surviving relatives of deceased employees (Ching'ambo 1995). The earlier models do not include the erosion of networks and information channels that are fundamental to labour specialization and the maintenance of social capital. HIV/AIDS is said to undercut economic networks by stripping them of the skills and organizational talent that foster and maintain them. Economists appear to be unconcerned with the impact on motivation. Imaging yourself waking up tomorrow in a country with 30% HIV prevalence in your age group, you do not know you HIV status but you do know that you have indulged in some high-risk behaviours, what kind of motivation are you going to have to deliver more than the bare minimum input at work? What is your investment strategy going to look like?

More recent economic models have laid greater emphasis upon human capital arguing that

1. AIDS selectively destroys human capital
2. AIDS 'weakens or even wrecks the mechanisms that general human capital formation'.

3. ‘The chance that the children themselves will contract the disease in adulthood makes investment in their education less attractive, even when both parents themselves remain uninfected’ (CHGA 2004).

Actually, whilst the first two arguments are valid if somewhat exaggerated, the third appears to be yet another example of economists not understanding how real people think. In deciding how much education to give their children, real parents do not first consider the risk of their nearest and dearest becoming infected with HIV/AIDS. If the parents are HIV negative they will assume that they will be able to pass on their good behaviour to their children. If the parents are HIV positive, in the long run they may not be able to afford the costs of giving their children as much education as they would wish, but it is likely that the same belief in personal invulnerability which resulted in the high risk behaviours which made them HIV positive will extend to a belief that their children at least will avoid this plague. The case of orphans who have lost both parents may be different, in that as reported above, their carers may be less keen or able to find the resources to educate them but again this will be because of current problems not some rationalization about their future likelihood of contracting HIV/AIDS. (One might expect AIDS orphans to adopt sexual behaviour designed to maximize the likelihood of avoiding HIV but there does not appear to be much evidence on this point).

A more cogent problem is that the education of orphans may well become a state responsibility but the tax base will be shrinking. Economic discussions have placed great emphasis on the increased dependency burden due to fewer prime age adults but the next stage is presumably when there are also fewer old people to care for as fewer adults survive through to old age. [Again we do not know whether those who do not contract HIV/AIDS will be healthier than average in old age].

McPherson (2003) has now produced the pessimistic economist’s model D of what happens when retrogressive effects cumulate so that we are moving into an era when GDP growth rates in heavily affected countries are entering negative territory. This is very different to Bonnel (2000) who claims that the decline in the growth rate tapers off as the HIV prevalence rate increases from 5% to 30% (yes, really!).

With such very high death rates it is possible that these countries will effectively implode. Malawi and Zambia were not doing brilliantly economically even before the effects of AIDS really began to bite. One of the possible consequences of HIV/AIDS is dementia. Watching current developments in Zimbabwe one can only wonder how many of that country’s senior decision makers are affected. In business sales, distribution and information networks already appear to be unravelling in Zambia and Zimbabwe.

Food security is a crucial issue which is ignored by many of the economic models. In famines it is the youngest and the elderly who die but with HIV/AIDS it is the core workers in the prime of life. The Northern Province of Zambia produced more than 1,2 million 90 kilogram bags of maize a decade ago. Recent production is 350,000 bags – this is not due to the impact of drought but of HIV/AIDS. In Malawi more than 40% of positions in the Ministry of Agriculture are vacant because both the skilled staff and the semi-skilled staff are unavailable. Other ministries are in a similar position.

The IMF have now caught up with the need to look at *The Macroeconics od HIV/AIDS* (Haacker 2004). Their model interprets HIV/AIDS 'as an income shock to affected households that forces them to reduce their investment in the education of younger members. At the same time, the returns to investment in human capital decline because of increased mortality as a whole … in the absence of policies to mitigate the impact of HIV/AIDS, an increasing share of the population will sink into poverty because of this twofold adverse impact on human capital'. This work has the advantage of recognising that macroeconomic analyses typically focus on aggregate changes in output and income and therefore fail to capture the welfare losses stemming from increased mortality and reduced life expectancy. Seeking to measure the 'value of statistical life' the authors derive estimates of the welfare impacts of increased mortality that can be expressed in the same metric as other welfare losses, namely, as a percentage of GDP. Unsurprisingly they find that, measured in this way, the decline in welfare due to HIV/AIDS dwarfs any estimates focusing on output or income. The basis of their calculations: wage differentials related to job risks taken from non-African countries may be bizarre but the effort to recognize that more years of life do have a value, is to be commended. For the curious, the figures which they reach, as a percentage loss of GDP due to the decline in life expectancy by 2003 are 69% for Malawi, 60% for Mozambique and 73% for Zambia. Standard IMF interpretations of the impact of HIV/AIDS continue to be more orthodox (Ellyne 2002).

Cornia and Zagonari (2002) have produced a simple dualistic model which comprises an urban and rural sector, two types of skills, the existence of surplus labour and time lags between the onset of the infection and its impact which is used to simulate the impact of public policies aimed at offsetting the economic impact of HIV/AIDS. The model does not, however, capture the impacts of the erosion of social capital; the rise in orphanhood or the possible worsening of income distribution. Findings from the model are that deaths have a greater impact than increased HIV prevalence which lengthens the lag before the impact really sets in. Overall the impact on GDP growth depends less on the relative prevalence across sectors than on the relative productivity of the different factors, for example if urban skilled workers are the most productive. In the model the impact of HIV-related diseases is convex relative to rises in prevalence whilst the impacts of AIDS deaths is concave.

Four main policy measures were tested with the model: (1) the government bears all heath expenditures to prevent a reduction in household savings rates; (2) training of scarce skilled workers is accelerated to reduce their depletion rate and maintain growth; (3) training is introduced to allow labour substitution between different kinds of labour; (4) Antiretroviral Therapy [ART] is provided to workers. The model shows (1) to be the most effective policy. The training of urban skilled workers is a good way of sustaining growth only if labour productivity in agriculture is low. Labour flexibility especially in relation to gender roles is good. Although this is contrary to a rights based approach to the provision of treatment, the model shows that to maximize economic impact ART should be focussed on the most productive workers. It is possible to argue with the assumptions of the model and with the conclusions, but at least the exercise has a clear policy focus and the findings (tables apart) are presented clearly enough to be understood by the relevant policy makers.

Apparently one reason why there has been relatively little examination of the economic impact of HIV/AIDS has been a concern that focusing on economic issues would distract planners and decision makers from a concern with the social impact of the disease (Loewenson and Whiteside 1997:1). If this is true, it is most unfortunate. It would also appear that, even where extensive research has taken place, as in Zambia, often it is not effectively taken up by planners and other decision makers. This may be due to the general nature of some research, denial, lack of ownership of the research, and lack of conceptual frameworks and tools for integrating AIDS into other aspects of planning. In Mozambique 'links between research and policy are weak', research results do not influence policy and 'policies are developed without much study of all relevant aspects involved' (Barradas and Arnaldo 2004). One challenge is to identify how best to ensure that existing research is effectively translated into action as well as gathering more relevant and critical data in the first place. National AIDS Plans do not include a clear research agenda of data needed for planning. Much of the existing writing on the economic impact of AIDS is formulaic (e,g. the work of USAID's Policy Project) and does not use the available research data, which reports on the local situation and on local issues such as the relationship between poverty, forced marriages and AIDS and can convince local planners because of its made-to-measure nature.. The result is bland statements such as 'after more than a decade of research and pilot programs, we now know how to prevent most new infections' (Bollinger and Stover 1999: 9). Well, yes we do know that condoms work, but we certainly do not know how to persuade African men to use them (Barradas and Arnaldo 2004, Bila 2003, Keusen 2000).

In 2001 the African Growth and Opportunities Forum held a plenary session on HIV/AIDS which included a discussion of 'The HIV/AIDS Crisis: How are Finance and Planning Ministries Responding?' This took a very narrow view of the question, basically examining how much funding was being allocated or sought for HIV/AIDS activities. It was stressed that in April 2001 the Heads of States of the Organization of African Unity (OAU) had agreed to allocate a minimum of 15% of government expenditures to public health. It was also noted that the preparation of Poverty Reduction Strategy Papers for inclusion in medium-term expenditure frameworks for Heavily Indebted Poor Country (HIPC) debt relief would increasingly focus on the multi-sectoral crisis.

What the 'Responding' paper and other planning proposals do not address is not 'how much money to spend on HIV/AIDS activities?' but the second and more crucial question which is 'Given very high levels of HIV/AIDS, how should we plan our economy to survive, even grow as best we can?' Instead, there was a meaningless statement that 'Experience from selected [but unnamed] countries demonstrates that governments can meet the challenge of HIV/AIDS and successfully pursue development objectives. Ministries of finance and planning as well as ministries of health, education, trade, commerce and tourism have critically important roles to play in the face of this challenge'. There is a recognition that finance authorities will still need to balance budgets, 'promote development through expansion of export capacity and by increasing the productivity and human capital of the domestic economy; effective policies must foster private sector investment and a vigorous export economy that may, as appropriate, include openness to foreign investment and assistance'. They would also need to reduce poverty and use the tools of planning to mobilize resources and enhance opportunities for private sector investment. However

'these other commitments notwithstanding, the most affected countries and governments will have to devote considerable resources to HIV/AIDS interventions lest the epidemic undermine other objectives' (USAID 2001: 4). For actual HIV/AIDS prevention and care resource requirements the paper uses the UNAIDS estimates which show that all three countries need to spend over $100 million annually. The issue of how an economy copes with a rapidly shrinking and increasingly unhealthy labour force is not addressed.

In terms of how HIV/AIDS expenditure should be allocated between prevention and care and support and between activities within these sub-sectors such as youth education, condom provision, orphan support or palliative care there are computer models such as the GOALS model. This builds on the spreadsheet for developing the UNGASS estimates which calculated the coverage that can be achieved by different levels of expenditures but extends these calculations to determine the effects on behaviour change and HIV prevalence, the number of infections averted and years of life saved (Stover, Bollinger and Cooper-Arnold 2001). Stover and Bollinger (2002) have also examined the allocation of resources in the Budgets of National Strategic HIV/AIDS Plans. Not surprisingly, they found that the level of autonomy in planning was directly related to the amount of local funding. Our three countries were singled out as examples of countries dependent on donors who therefore play a significant role in resources allocation decisions, not least because they decide which parts of the programme to fund. In most strategic planning exercises in the three countries, the detailed plan is completed first, then the budget is developed. This means that there is minimal strategic budgeting in the sense of considering whether allocating more resources to A rather than B (say counsellors versus condoms) would prevent more new cases of HIV/AIDS. To give a specific example, the Mwanza trial of syndromic management of sexually transmitted infections (STIs) in Tanzania showed that it was cost effective (Attawell and Grosskurth 1999). Many program managers are aware of this and thus include such syndromic management their strategic plans. But the amount of funding allocated to this intervention is not based on whether it is more or less cost effective than other interventions such as using the mass media or school education. Instead the amount of syndromic management of STIs is based on estimates of need, capacities to use the funding and donor interest in the area. In many cases, as with other sectors of the economy, fixed costs for items such as salaries and office expenses from last year's budget tend to be repeated in this year's budget. One difficulty with allocating resources within HIV/AIDS programmes is that they have multiple purposes from prevention to treatment and mitigation. It is possible to use models to work out the most effective sets of prevention or treatment interventions to achieve sub-sectoral goals but there is no clear basis for deciding on the balance between the allocation of resources to prevention and treatment.

There is also the issue that the African governments concerned are already considerably over-extended in terms of their overall capacity to deliver services. They can only scale-up efforts to deal with HIV/AIDS by making serious decisions to 'scale down' on some existing activities. This is simple common sense, but not really a bullet which the PRSPs have been willing to bite. One obvious area for 'scaling back' or, if that is not politically feasible changing roles, is the military, These governments need either to significantly reduce the numbers in their armed forces or to redeploy their armies on useful and productive tasks such as the building of roads, schools and other infrastructure or the delivery of services to remote areas. However,

in all three countries, HIV infection rates in the military are exceptionally high but it is not clear how far new recruitment is making up for loses.

Analysis of the broad economic impact of HIV/AIDS in Southern Africa is limited. Analysis which looks at the impact on rural areas is even rarer. One outstanding study is the FAO examination of the consequences of HIV/AIDS in the Northern Province of Zambia (FAO 2004). This documents shows how in an already very poor area the disease has resulted in decreased agricultural productivity and increased household food insecurity. Further HIV/AIDS worsens gender-based differences in access to land and other productive resources such as labour, technology, credit and water. In Zambia, women and youth contribute 70% of agricultural labour, but they have little access to productive assets and are marginalized in the decision-making processes at both the household and community levels. Here the observance of tradition means decision making by older men and to the benefit of older men. Now the loss of adult labour is forcing families to withdraw older children from school to care for younger siblings and help in food production. In this Province land is still held communally, and for those who cannot afford the time and money required for co-operative membership which provides most access to inputs such as fertilisers, slash-and-burn (chitemene) agriculture is still significant. When male household heads die 'property grabbing' is a significant problem with 29% of female-headed households having lost items such as bicycles, radios and farm tools. The few sources of cash include crop sales, beer-brewing and some sales of poultry and fish. In general, the households in the region do not have enough food to last all year round, female headed households need to buy food for an average of 3.4 months per year, It is worthwhile examining this study alongside the Agriculture Chapter of the PRSP which is much concerned with commercial agriculture and does not seriously address the needs of the poorest farmers.

Given the overall poverty of the countries concerned it is not realistic to expect the state to provide social welfare and support programmes. In one district in southern Zambia, 0.5% of potentially eligible people receive state welfare assistance (CHGA 2004: 30). Even in richer South Africa in 2000 less than 5% of eligible children were benefiting from monthly grants to grandparents or other guardians caring for orphans. In Zambia the government gives grants to NGOs for their projects for street children and provides some funds to support school attendance by orphans. Normally the assumption has to be that care and support will come from families.

For Mozambique. Arndt (2002) quantified the impacts of HIV/AIDS on key macroeconomic variables for 1999-2010. She estimate that AIDS would lower the per capita GDP by between 4% and 12% due to reductions in productivity, population growth and human capital and reductions in physical capital accumulation.

THE PRSPS, ECONOMIC PLANNING AND HIV/AIDS

'The problem with the Malawi PRSP (MPRSP) is that it provides a wish list of policies without identifying the critical macroeconomic policies that are necessary for a rapid reduction in poverty (Chirwa 2005:10). In the crucial area of agriculture, the strategy for increasing agricultural incomes ranks reducing land shortages (presumably through breaking up some of the big estates which grow crops such as tea virtually at a loss) seventh after expanding access to agricultural inputs, research

and extension services, and improving access to markets. Yet many studies have already shown that access to more land is the critical factor in increasing agricultural production and the adoption of new technologies - so land reform needs to have the highest priority (Zeller et al 1998). The PRSP exists 'in a vacuum of empirical studies and without results-based policy analysis. Whilst the PRSP establishes priorities over government policies and programmes, macroeconomic and sectoral positions are not strategic, and very little is known as to how different policies are likely to influence growth and poverty or the link between growth and poverty reduction'. As Chirwa (2005) told the World Bank and the IMF, Malawi has already been taking the policy medicine prescribed by the international financial institutions for many years yet things have actually been getting worse not better. The 1998 National Household Survey of Malawi (NHHS) found that 65% of the population were living on less than US $0.34 a day. Then the 2000 NHHS found that 77% were still poor, 3% had escaped poverty, 5% had stayed non-poor and 15% had fallen into poverty. Thus the percentage in poverty had risen from 80% to 92%. One reason why rural households were becoming poorer was that the deregulation of trading in agricultural produce, a favourite of the Bank, had only benefited the traders, most of whom exploited the farmers and many of whom were actively dishonest (with false scales, lies about final prices etc.).

The results from the 1996/7 household survey were used by the Government of Mozambique to develop the country's poverty reduction strategy paper, the Action Plan to Reduce Absolute Poverty (PARPA), which was approved by the Council of Ministers in 2001 (República de Moçambique 2001). The main objective of PARPA was to reduce the incidence of absolute poverty from the level of 69% in 1996/7 to 60% by the year 2004 and around 50% in the following five years. It established a multi-sectoral framework for fighting absolute poverty for a period of five years, 2001-2005 with the fundamental areas of intervention being: i) education; ii) health; iii) agriculture and rural development; iv) infrastructure; v) good governance; and vi) macro-economic management. The demographic aspects taken into account in PARPA are mortality and HIV/AIDS, and are integrated in the Health area. The high dependency ratio, determined mainly by the high level of fertility (the total fertility rate was estimated at 5.6 children per women 2003 (INE 2004)) is considered as an important determinant of poverty in Mozambique (MPF 1998:26) but no strategy or program to reduce the dependency ratio is considered in PARPA. Overall, Mozambique's PARPA is a more professional document with a greater sense of strategy than either the Malawian or Zambian PRSP.

Some weakness that have been pointed out for the PARPA are i) the weak articulation between the PARPA goals and other strategic planning instruments such as the national budget and the government Economic and Social Plan; ii) PARPA is too centralized and the provinces and other sub-national administrative levels have not been included in its conception, elaboration, monitoring and implementation; and iii) weak partnership with civil society organization (Francisco 2004; Ministério da Planificação e Desenvolvimento 2005). These weaknesses should be taken into account in the preparation of PARPA II, the PARPA 2006-2010, which began in 2004. The methodology proposed for PARPA II recognises the need for more involvement of civil society organisations and the Parliament, which requires more

time and adequate preparation of the consulting instruments so that the stakeholders can provide more valuable inputs (Oya 2004).

The World Bank is conscious of the need to link AIDS and the PRSPs so that they even have a training video asking 'Can We Marry These Key Parts of the Development Agenda' (13/12/2001). Their objective is to stress that AIDS is not only a health problem but needs to be thought of as a development problem as well. Statements endorsed by the Bank include

- In Africa today, AIDS is destroying social capital, weakening government institutions and creating wider and deeper poverty.
- AIDS has worsened the income distribution of countries.
- AIDS has reduced agricultural production.
- AIDS has added significant costs to the business sector through the loss of workers, retraining of new workers, and lowered production rates.
- AIDS has created a whole generation of orphans without appropriate family structures or education, who will one day inherit management of their countries.

Whilst having no difficulty in acknowledging that AIDS causes poverty the Bank reiterates that the evidence that poverty increases AIDS is less clear cut. With respect to AIDS and the PRSPs, Bank staff note that most have little input which explores the linkages between AIDS and poverty nor have they set goals to reduce AIDS's impact on poverty. Uganda, as usual, is cited as an example of a country which has performed well at addressing short-term anti-HIV action plans through its PRSP. Other countries lack strong data bases, have limited capacity for analysis and weak technical support. AIDS has now been included in the Terms of Reference for the PRSPs but this important step is not sufficient in itself. The idea is not just to add on some extra expenditure into the plans but to include the issue as part of the planning process. Some of the Bank staff now encourage national AIDS organizations to lobby to influence the PRSP decision making but the fact that they need to do this shows a misunderstanding of what the PRSP process is supposed to do.

When the Malawi Country Assistance Strategy went to the Board of Directors of the World Bank there was little in it on the development impact of AIDS and it was the Board who queried why so little analysis was available. In 2004, recognizing that the economy had been registering negative growth, the Government, with the assistance of the World Bank, issued the Malawi Economic Growth Strategy aimed at reversing the trend. This three volume document lists 15 major constraints to economic growth including the 'high cost and unreliable supply of utilities' but HIV/AIDS does not rate a mention! Instead human resource constraints are to be resolved by introducing 'vocational and technical and business management courses at primary and secondary schools'. This in a country where existing teachers are already dying more rapidly than new teachers are being trained. Agriculture is the largest sector of the Malawian economy contributing 40% of GDP and over 80% of total export earnings (60% from tobacco alone) and employing more than 80% of the rural population. Yet for the poor rural population all that is on offer is 'priority will be given to the re-orientation of the smallholder sub-sector towards greater commercialisation and international competitiveness'. This in a country where 47 %

of the total population is malnourished. There is clearly a continuing disjunction between reality and planning in Malawi despite assistance from the World Bank.

EDUCATION AND HIV/AIDS

The most critical area where economic planning and the demography of HIV/AIDS overlap is in education. If education fails then these countries will fail. Malawi presents the extreme case of a country which has not educated its people and now cannot afford to do so. According to Peroshni Govender of the South Africam Institute for International Affairs 'Countries like Zambia and Zimbabwe face having the gains made towards achieving Universal Primary Education by 2915 reversed, unless they stabilize the devastating impacts of AIDS. A dangerous cycle is setting in: AIDS is decreasing the opportunity for children to become educated, and less education deepens poverty, which in turn increases the vulnerability to infection' (IRIN 2/6/05).

Studies by UNAIDS in 17 African countries show that receiving at least a primary school education can halve the risk of young people contracting HIV, even if they are never exposed to specific AIDS-related programmes. UNAIDS predicts that by 2005 up to 20% of educators in sub-Saharan Africa will have died from AIDS. The recent World Bank (2005) study in Zambia shows the impact of teacher absences due to illness upon learning. Deaths of teachers from AIDS had risen from 2 per day in 1996 to 4 plus per day in 1998 representing two-thirds of each year's output of newly trained teachers. The Global Campaign for Education (GCE) advocates training volunteers identified by local community leaders to provide educational support to students when teachers are off sick in such countries, but the question is whether potential volunteers are, indeed, available with time to spare from agriculture and caring for sick relatives.

Looking at the African evidence on the relationship between education levels and the prevalence of HIV/AIDS requires an understanding of where the data comes from and a recognition that the pattern may well have changed over time. Most data on HIV/AIDS prevalence comes from the testing of women in antenatal clinics. By definition these women are pregnant and, especially for younger women, not necessarily representative of their age cohort. There is agreement that studies based on data for the late 1980s and early 1990s, when the pandemic was emerging, show a direct and positive relationship between the level of education and the prevalence rate. The debate is now over whether this positive correlation has been reversed (Vandemoortele and Delamonica 2000). Education can work through spreading information on HIV/AIDS, especially accurate information for example that it is not possible to judge whether someone is HIC positive by seeing whether they look clean and healthy. In Mozambique, where education levels are very low only 38% of young women aged 15-24 knew that a healthy looking person could be HIV positive (Barradas and Arnaldo 2004: 5). Alternatively, or in addition, education can work, especially for young women by empowering them to take greater control over their lives and winning acceptance by their families and others that they can break with traditional values and customs. One important factor may simply be raising the age at which females begin to be sexually active. A study from Zimbabwe suggests that young women who have secondary education and are active members of

community groups are more likely to avoid HIV infection (Gregson et al. 2004). Actual data on sero-prevalence and education are rare. Data from Zambia for 1994 show higher rates amongst the more educated pregnant women aged 25-29 (Fylkesnes et al 1997) but they had become sexually active early in the epidemic, for women aged 15-19 the relationship no longer held. If this continues then the association between HIV/AIDS and poverty is likely to increase.

Some of the best studies of the impact of HIV/AIDS on the labour force have been in the education sector. In Malawi, Chawani and Kadzamira (2004) have looked in detail at what actually happens in the Ministry of Education right down to seeing how much is spent on coffins. They found that despite all the rhetoric the Ministry was still not operating in a policy environment that was sensitive to HIV/AIDS. Yet 'the government is losing enormous amounts of scarce resources in trying to cope with the effects of ever-increasing levels of morbidity and mortality. These include greater absenteeism, reduced productivity, higher staff turnover, lower morale and falling levels of work experience and quality'. 'Both absenteeism and vacancies lead to a greater workload for other members of staff. Furthermore, this creates a vicious downward spiral of operational efficiency; where workloads and vacancies are high, more staff are likely to absent themselves from work, seek transfer or even secure another job. Not only does the combined impact of absenteeism, attrition, vacancies and heavier workloads negatively impact on the productivity and performance of individual employees and the organization as a whole; it also has significant financial implications. Extra expenses include funeral costs, death benefits, medical benefits, recruitment and training.' Such expenditure meant that finances were diverted away from actual service delivery.

The above study was in the Ministry of Education. There is some debate about the level of teacher mortality from HIV/AIDS. The expectation is that the mortality level would be quite high (a) because teachers are relatively young and (b) because they are relatively well paid and mobile. There is data on teacher deaths from all causes for rural and urban Malawi and Zambia (and Botswana for comparison) (Source Bennell 2004).

Table 4 Teacher mortality rates in Three Southern African countries

	1997	1998	1999	2000	2001	2002
Malawi-rural	1.0	1.8	3.6	2.5	2.2	1.9
Malawi-urban	1.2	1.3	2.9	3.3	2.5	3.2
Zambia	2.7			2.0	2.0	1.6
Botswana			0.7	0.6	0.5	0.5

Using a different set of figures, in the same paper Bennell (2004:2) reports that mortality rates for primary and secondary school teachers in Zambia were 1.01% and 0.8% respectively in 1998 compared to the overall mortality rate of 1.37% for the total population aged 20-49. He argues that given the age and gender profiles of the teachers, one would have expected higher than average mortality rates for teachers. [although male teachers have a bad reputation for seducing their female students, there must be some places as for example in church schools, where good behaviour is

expected of them]. The Malawi public service study found that the standardized mortality rate for teachers was 95% of the norm for secondary and 61% for primary. However, it is not known how many teachers with HIV/AIDS retire when seriously ill and thus do not appear in the statistics as teacher deaths. In Zambia, a survey of secondary school students in 2003 found that the mortality rate amongst fathers who were or had been teachers was 11% as compared to an overall mortality rate of 18% for fathers as a whole.

It would be nice to think that the figures for death rates over time indicate that mortality among teachers has declined. In Botswana the decline in the death rate could be due to anti-retroviral drugs but in Malawi and Zambia, where they have not been available until recently, this could only be due to an earlier change in sexual behaviour. In 1998 Kelly was predicting that the annual mortality rate for Zambian teachers would rise to 6.6% by 2005. Cumulative mortality at the University of Malawi from 1997 to 2002 was 14% for support staff as against 8% for lecturers and senior administrators.

For Mozambique it has been estimated that the numbers of children available to be in primary school will decline by 13% by 2010 – this is not including children kept out of school by poverty, orphanhood or the need to care for sick relatives (Verde Azul 2001). The education sector is also projected to lose 17% of its personnel to AIDS including 9,200 teachers and 123 senior managers. To replace trained teachers, trainees with middle level degrees will need to be expanded by 25% and those with university degrees by 28% at a cost of 7% of the education budget.

The question of what is happening to mortality levels for teachers is very significant for a number of reasons. One is that if teachers can learn to change their sexual behaviour so too can everyone else. Teachers are important figures in their communities and can spread the message. Also teachers are the most numerous public servants in most African countries so costs associated with them have a major impact on budgets. Finally, teachers are skilled worker who need to be trained. Governments need good data on teacher attrition rates so that they can make effective decisions about the training and deployment of future teachers and can decide how far they need to look to innovative solutions such as distance education or the use of apprentice teachers (as in Bhutan) to ensure that all children are able to get at least a primary education.

One example of an activity which overwhelmed governments should back away from is pre-school education. Despite the Millennium Goals, outsiders should not encourage governments to spend on pre-schools until they have got all children into and through primary school. One activity which costs very little, but appears to have some impact on postponing sexual activity and therefore reducing the spread of HIV/AIDS in Malawi, is school clubs which encourage both chastity and alternative uses of time.

PLANNING FOR THE HEALTH SECTOR

We can predict mortality and morbidity and know that social and health services will face greatly increased demand. In this environment, surely AIDS and its consequences must be factored into planning, we ask. Unbelievably, this is not the

case…. One reason why there is so little action is that government officials simply do not believe the scope and scale of the problem they are facing … that impact will be felt in waves, the first is HIV infections, the second is AIDS cases, third are the deaths, and finally come the consequences (Whiteside 2002: 24 and 28.).

After independence in 1975 there were only 40 medical doctors in the whole of Mozambique. Now there are 800 doctors 300 of whom are expatriates for a population of 18.8 million. That is one doctor per 23,500 people. The 11,000 nurses represent one per 1,700 while WHO recommends one for every 300. Further, health care is very unevenly spread with 80% of the doctors in Maputo the capital. In distant provinces health staff frequently have minimal qualifications. Given an adult HIV prevalence of 14.9%in 2004 from the sentinel surveillance, then there would be 1.4 million HIV positive people of whom 218,000 needed treatment. That is each doctor would have 2,725 HIV/AIDS patients plus all the other patients with malaria, pregnancy and every other need. Currently the Government is importing 120 doctors from India and Cuba to be paid from donor funds (at US $36,000 a year). Due to AIDS related deaths Mozambique needs to train 25% more doctors and nurses every year just to maintain current low levels of staffing. The infrastructure is just as inadequate as the staffing numbers. The mortality of workers in the Mozambique Health Sector rose by 400% between 1995 and 2001 – yet this was still below projections based on the HIV prevalence rate (MISAU 2002).

ANTIRETROVIRAL THERAPY

As few years ago as 1996 it was unthinkable that these African countries would be able to think of providing Antiretroviral therapy [ART} to their citizens. Now a reduction in the price of the drugs combined with some donations makes this a possibility for some (Sachs et al 2001). There are still two major problems, however, (1) the cost is still very high by local standards being more than double even triple per capita GDPso that a dreadful choice has to be made as to who gets treatment and (2) the requirements in terms of skilled medical staff to prescribe and monitor are also way beyond the capacity of these countries to provide on a broad scale (Chirac 2002), So currently the schemes are only available on an experimental basis usually under the aegis of international NGOs such as Medecins Sans Frontieres although the funding is provided by the World Bank. Anyone familiar with how things usually work out in practice in the region can envisage the terrible risks of corruption which will be associated with a very limited supply of a life-prolonging drug cocktail. In Zambia men spread the rumour that the treatment was only for men and prostitutes. In households were both husband and wife are infected normally only the husband gets treatment. Even after special efforts to enrol more women, only 36% of those receiving ART were women despite their higher infection rate.

Similar issues of affordability, choice and longer term consequences apply to the use of drugs in the prevention of mother to child transmission (MTCT) of HIV. It requires integrated voluntary counselling and testing (VCT) services, prevention and treatment of sexually transmitted diseases, good quality antenatal facilities and close post-natal follow-up - a package not widely available in the region. Also because HIV can be transmitted through maternal milk, replacement feeding is preferable but this is too expensive and there is no clean water. Often the children will still become orphans and on this grounds many in a country such as Malawi unofficially feel that the time is not yet ripe for addressing MTCT. Malawi spends $7

per person on health and is dependent on donors even for that pittance. Lilongwe Central Hospital in the capital was once the crown jewel of Malawi's health system now its wards can no longer provide real services – just a morgue (Donnelly 2003).

Ana Maria Muhai is an AIDS activist on the outskirts of Maputo. She is now 43. Her miner husband returned from South Africa in 1998 with a retrenchment bonus and promptly left her and their three young children when she became sick. In 2002 she weighed 29Kg and was bald with horrible skin rashes and a dreadful cough. Within 3 weeks ARVs had her restored to health. "I know it is not a cure, but I feel cured".

WHO carried out a partial analysis of Interim PRSPs and PRSPs presented to the Bank and Fund as of June 2001. WHO found that the PRSP guidelines include appropriate language to encourage the integration of health policy into poverty reduction strategies, but said that the resulting documents tend to analyse the role of health along tradition lines i.e. in terms of raising the standard of basic service provision. With the exception of Mozambique, most PRSPs do not have a specific pro-poor focus i.e. they do not analyse the diseases of the poor or track how treatments are financed. Health sections of the documents tend to be short, and there is generally little attention given to the issue of AIDS in the PRSP. Too many of the PRSPs appear to be written by central government, with inadequate participation of local authorities or civil society. Health targets emphasize impacts, with little attempt to establish indicators designed to measure progress towards the achievement of goals.

In Malawi as early as 1997 the death rate of health care workers had already risen six fold to 3% per annum (Government of Malawi 1998). In 2000 Malawi's total health budget per HIV positive person per year was $8.94 (Clarke 2000). Malawi is now in a position with funding from the Global Fund for HIV/AIDS, Tuberculosis and Malaria (GFATM) to commence a programme of provision of anti-retroviral therapy (ART) using a public health approach, with an integrated programme of prevention, care and support. Or, at least, it would be in position, if only there were the required health personnel available. Instead, there is already an absolute shortage of health staff across the sector, with over half of all government health posts unfilled. Given that the government can only afford to pay doctors $3,120 and nurses $2,100 for a year's work this is hardly surprising. Even without the impact of AIDS nurses leave for the UK and USA. At current health staffing levels, 90% of public health facilities do not have the capacity to deliver the Essential Health Package, a planned minimum package of healthcare for all (Kemp et al.2003). In these circumstances, delivering ART to a minority is likely to involve robbing poor remote subsistence farmer Pauline in order to pay Peter the bureaucrat employed in the capital. In a country where perhaps 200,000 could benefit from ART but only a maximum of 50,000 will be able to do so even in five years time will raise terrible questions of equity.

In Lusaka as early as 1991-2 HIV prevalence was 39% among midwives and 44% among nurses. In two Southern Zambian hospitals mortality rates among nurses rose from 0.5% per annum in 1980 to 2.7% in 1991 due to HIV/AIDS (Buve et al. 1994). The Medical Director of one of these hospitals went on an overseas training course he didn't need: 'I can't stand to watch my nurses die'. Morale and absenteeism

are particular problems for health workers subject to burn out, stress, fear of infection and weariness with dealing with the incurable (Foster 1996).

GENERAL EMPLOYMENT ISSUES

Whilst there are specific issues relating to the impact of HIV/AIDS on employment in the education and health sectors there are also some more general employment issues which receive much less attention but need to be addressed. ILO projects that by 2020 Mozambique will have lost 2,2 million workers or 17% of its total labour force. Most of these people will have been workers in the informal sector which is why it is so difficult to envisage the impact on the economy. One critical structural factor is the relationship between the spread of HIV/AIDS and highly mobile labour. There should be increased efforts to reduce structural risks such as labour migrancy, single sex housing or the setting up of male work gangs whose sexual needs are routinely met though commercial sex. In Cameroon a World Bank Project to build an oil pipeline includes moveable villages so that the workers can bring their families with them to avoid HIV/AIDS transmission (this probably works better with Muslim workers). Often the army is, after lorry drivers and sex workers, the occupational group with the highest incidence of HIV/AIDS.

CONCLUSION

It has become fashionable to talk about viewing problems through a particular 'lens' to ensure that the focus is right. Assuming that economic planners in Southern Africa face the same risk of HIV/AIDS as the rest of the adult population: knowingly or not, close to one in five will be seeing the world from the perspective of someone who is HIV positive. The lack of a broader HIV/AIDS perspective in general economic planning may reflect the extent to which the staff from World Bank set the parameters for African economic plans. To state this is not to engage in conspiracy theories, but to acknowledge the reality that busy planners sitting at their desks between funerals and ferrying their relatives to hospital (after all they are the ones with cars) save time and effort by following lines familiar to the Bank staff who will have to approve their efforts.

AIDS is a long wave (and not temporary) scourge which exerts a lagged and cumulative effect on the working of the economy. At first its impact is barely felt at the national level, but it becomes stronger and stronger with time (Cornia and Zagonari 2002: 25). It erodes the stock of production factors: skilled and unskilled labour, land fertility, financial savings, investments and social capital. Therefore policy responses should focus on avoiding the decline in these factors, creating greater flexibility in their use and supporting local community responses to preserve welfare and local economies.

HIV/AIDS is a major problem of its own account. It is also a major cause of poverty. It is not enough in economic planning to devote a chapter to Health with a focus on HI/AIDS. Instead the relevant Ministries responsible for economic planning should start with the core question Given that X % of our population are HIV positive and that P will die within the next 5 years and P plus Y within the next 10 years what should our strategy be. How can we ensure education for all which is vital for

equity, economic progress and reducing the spread of HIV/AIDS ?What should be the role of the army in defending the country against HIV/AIDS? Can soldiers be productively employed? What can be done to maintain food production and availability? What can be done for poor who are not HIV positive? What can be done to improve the status of women both as a matter of equity and as a means to combat HIV/AIDS? With the knowledge of local coping strategies what should change ? Fertiliser subsidies? Credit provision? Marketing outlets? Co-operative membership / more traditional groups? The prevalence of HIV/AIDS is only one of the many reasons why investors do not rush to invest in Southern Africa, but governments and others need to counteract the impression that due to HIV/AIDS morale is low, skilled workers are hard to find, absenteeism is high, and the costs of employees' benefits, training and hiring impose a heavy burden (Ching'ambo et al 1995). Clearly each individual donor supported project needs to be examined for its potential to reduce or increase the spread of HIV/AIDS and appropriate action be taken. An example would be the World Bank supported Roads and Coastal Shipping Project in Mozambique which includes specific STD/AIDS prevention activities.

Whilst it is customary to conclude with a plea for further research this is a plea for more action and certainly no more research on misleading macro-economic models. Where there is research it should be combined with action (a) in identifying the impact of HIV/AIDS on household poverty whilst simultaneously moving to alleviate it; (b) in identifying the channels through which HIV/AIDS affects national economies and moving to change the flow and (3) in examining the impact of HIV/AIDS on government revenues and expenditures so as to ensure burdens are equitably shared.

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