MITIGATING THE IMPACT OF THE HIV EPIDEMIC ON DEVELOPMENT

Responding to the Socio-Economic Impact of the HIV Epidemic in Sub-Saharan Africa: Why a Systems Approach is Needed

The HIV Epidemic and the Education Sector in sub-Saharan Africa

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# TABLE OF CONTENTS

I. RESPONDING TO THE SOCIO-ECONOMIC IMPACT OF THE HIV EPIDEMIC IN SUB-SAHARAN AFRICA: WHY A SYSTEMS APPROACH IS NEEDED

- What is the Problem? .......................................................................................................................1
- What Should Be the Response? .......................................................................................................4
- What Are the Key Principles to Guide What to Do in Sub-Saharan Africa in the Light of the Foregoing? .......................................................................................................................................5
- How Should It Be Done? .................................................................................................................6
- Conclusions......................................................................................................................................8

II. THE HIV EPIDEMIC AND THE EDUCATION SECTOR IN SUB-SAHARAN AFRICA

1. HUMAN RESOURCES AND THE EDUCATION SYSTEM.........................................................10
   - What is the evidence of the impact of HIV and AIDS on the Education Sector? ......................11
   - Undertaking a Situation Assessment ..................................................................................12

2. EDUCATIONAL SERVICES - ASSESSING NEEDS AND PERFORMANCE .........................13
   - How are families and communities responding? ..................................................................14
   - Planning for the impact on the educational system .............................................................15
   - Policy development in education and other sectors..............................................................15

3. RESTRUCTURING EDUCATIONAL INSTITUTIONS - EPIDEMIC IMPERATIVES ......16

CONCLUSIONS............................................................................................................................18

Biographical Note ..........................................................................................................................20

About UNDP..................................................................................................................................20
I. RESPONDING TO THE SOCIO-ECONOMIC IMPACT OF THE HIV EPIDEMIC IN SUB-SAHARAN AFRICA

WHY A SYSTEMS APPROACH IS NEEDED

What is the Problem?

Analyses and responses to the HIV epidemic remain rooted in a mind set which while it was relevant 5 or more years ago may no longer be so. Or at least what is written, said, thought and done about the development implications of the HIV epidemic are no longer sufficient. There is still a lack of clarity about the ways in which development affects the course of the HIV epidemic, such as the role of poverty in transmission of the virus and how families cope with the poverty caused by illness and death. It follows that much analytical and empirical work remains to be done.

Similarly, we know very little about how to move from the language of multi-sectoralism to effective programmes which actively engage all relevant organizations and interests at national and community level. While there has been some progress in moving from processes reliant on experts and "normal professionalism", towards more inclusive and participatory approaches, we are still many years away from general acceptance of the need for changes in development practice within both the donor and recipient communities. Nevertheless, there is some limited evidence of a deeper perception of the need for new and better ways of working on development - including how best to respond to the HIV epidemic as a development issue.

At the same time as development organizations, such as UNDP and the World Bank, have been redefining their objectives - sustainable human development, eradication of poverty and sustainable livelihoods, within frameworks that ensure gender equality, better systems of governance and environmental protection - so the apparently inexorable march of the HIV epidemic has been eroding the development capacities for achieving these entirely reasonable and desirable targets. How did this come to pass?

The HIV and Development Programme of UNDP, among others, have been arguing for almost a decade now that the epidemic will undermine development in high prevalence countries. So why is it that perceptions of what is feasible in terms of development in sub-Saharan Africa are still so unrealistic? For example, both policies and programmes in all of the key areas of UNDP priority concerns continue for the most part to be designed and implemented as if the HIV epidemic neither affects their achievability nor has any consequences for the continued spread of HIV.

There are many contributing factors to the state of affairs described above but this is not the place to analyse these factors in any detail. One contributing element has been the concentration of those working on the epidemic on matters of prediction. That if X is not done then Y will happen - specifically that at some point in time there will be severe damage to development possibilities because of the epidemic. Much effort has been expended by UNDP and others in raising awareness
of the many ways in which the HIV epidemic diminishes what can be achieved through development programmes, irrespective of how these are financed and implemented. It is not being suggested that these advocacy activities have entirely failed in their objectives but, unfortunately, it is now the case that in many countries in Africa the effects of the epidemic are now systematically eroding development capacity. **While past efforts have largely focused on predicting what might happen, the world and the epidemic have moved on and reality is now only too often worse than any prior predictions.**

Thus in many parts of Eastern, Central and Southern Africa governments, the private sector, communities and households now face a day to day experience of falling standards of living, reduced capacities for personal and social achievement, worsening expectations of what the future holds for them (with important consequences for what can be achieved today), and a diminished capacity to maintain what has been secured over past decades in terms of social and economic development. In an important and significant way the problem has changed: i.e. perhaps the issue should no longer be defined as one of HIV and AIDS. This is in spite of the fact that many of the problems for sustainable development are causally related to the HIV epidemic, for the epidemic does not randomly erode developmental capacities because who gets infected, where they live and work, their spatial concentration, and their gender, are not random outcomes.

While there is general agreement that Africa is facing a set of constraints which must be addressed if development activities are to be successful - the fact that some of these constraints have their origins in the HIV epidemic, while very relevant to programme design and implementation, is in a real sense no longer the core of the problem. Causality is now a second order consideration; being able to ameliorate the social and economic consequences of the epidemic has now become the primary task facing many countries in sub-Saharan Africa.

In far too many African countries HIV surveillance is now registering infection rates in adults of 15-25% - higher in urban populations but increasingly being matched in rural areas. Prevalence continues to rise in most countries even beyond levels of infection that few predicted as probable a few years ago. Infection is concentrated on the working age population (15-45); with women infected at earlier ages than men, and rather more women infected than men. There is limited evidence that infection (and its consequences) are skewed in their distribution towards the better educated, managerial and skilled in the labour force, with effects which are now in some countries devastating the human resource base. Poverty is intensifying and deepening - even for households with apparently greater capacity to deal with shocks (through pressures on family resources caused by increased expenditures on health, the diversion of labour to caring and non-income earning/substituting activities, reductions in earnings, and so on). Productive capacity is being reduced in all sectors - both public and private - at the same time as demands are increasing, particularly for public goods such as health and education.

To give a few examples of the reality facing many families, communities and economic and social organizations.

| A lawyer in Gabarone (Botswana) complains that he can longer count on the legal system to | 2 |
function because of absences of court officials - "what am I to do in the face of the legitimate demands from my clients for speedy redress through the courts?".

C In Kagera Region of Tanzania there is an observable and measurable decline in the productivity of the mattooki/coffee bean smallholdings system because of labour losses to households with effects on both farm incomes (with worsening child nutrition and falling school attendance - by girls especially, and a deepening of poverty) and reductions in export capacity (of coffee). Both food and non-food production in Kagera are no longer sustainable systems.

C In Uganda there is a process of decentralisation of government to Districts (a process underway in many parts of Africa) but because of deaths caused by HIV and AIDS in the Western Region there is effectively no local government - and public servants in Kampala are reluctant to have their families transferred to this area for perfectly understandable reasons - not least the risk of HIV to themselves and their families.

C In Kenya there have been HIV-related deaths amongst politicians, including ministers, although this is rarely admitted publicly. What effect is this having on the whole process of "democratisation" not only in Kenya but other countries where similar effects are experienced?

C In Zambia a major international Bank (Barclays) has established an active workplace policy to deal with the persistent losses of labour caused directly and indirectly by the epidemic (absenteeism and the disruption of the flow of work caused by this and other factors; labour turnover caused by mortality, and women being also drawn out of the labour force to care for others with HIV-related infections and because of their own infection, and so on).

C In all of the countries with mature experience of the epidemic - and this is now many -there are disruptions to activities throughout the public service and public utility sectors. This seems to be most obviously true of public administration where absenteeism is commonplace and increasing, and where public servants with specific skills and experience are simply disappearing in large numbers. These effects are especially evident in Health where losses of doctors, nurses and administrators affects what services can be supplied in the face of health seeking behaviour which simply cannot be met. Wards - especially infectious diseases such as TB - are overflowing. Similarly, in the Education sector where teacher capacity is declining - not increasing - because of HIV infection and mortality. Yet improved access to better quality education, especially for girls, has been identified by everyone as critical for achieving economic and social objectives (vide the platforms of Cairo, Beijing and Copenhagen).

C In Tanzania it is reported that the military are suffering a daily attrition of soldiers of all ranks because of HIV infection. This seems to be common for militaries throughout Eastern, Central and Southern Africa. These losses are not only personal they also represent the loss of important social investments - the military have in Africa critical functions which often straddle public order, defence and economic roles.
It is now reported that South Africa (RSA) has 3 million people infected with HIV - the highest of any country in Africa. Yet RSA is expected by many to exercise a continent-wide role as an engine of economic growth and source of technical capacity for the rest of Southern Africa. How will this be feasible? With HIV infection now rising at one of the fastest rates anywhere in the world and in a country where civil society is still deeply divided.

An estimated 8 million African children have lost one or both parents to HIV and AIDS since the epidemic started, and projections are for this to rise to 40 million within the next 10-15 years. These numbers are staggering and have implications for Africa which extend far beyond matters of care, important though it is to ensure that children are effectively looked after. The issues raised are complex and require similarly complex programme responses that encompasses care but extends to all areas of socio-economic and cultural support.

What the above examples demonstrate is the extent of the consequences of the HIV epidemic for the entire functioning of the economy and of civil society. Clearly there are differential impacts which are not felt equally everywhere. There is spatial, sectoral and social class differentiation in terms of the impact of the epidemic and it is important that these be identified and addressed through policies and programmes. But what the evidence reveals is the inter-dependence of the social, economic and political systems, and it is precisely this capacity to function normally which is being undermined by the epidemic.

Here is the crux of the problem as well as the challenge. The objective has to be the continued functioning of a complex and inter-dependent social and economic system. But this objective can only be achieved through policies and programmes which are themselves systemic and multisectoral. It means, furthermore, that programmes have to address the internal matrix of productive sectors in a similarly systemic way - for example, to respond to the issues facing the health sector through programmes which recognise the interdependence of the different parts. At the present time far too many interventions fail to take into account their systemic effects and as a result are a good deal less than fully effective.

What Should Be the Response?

The foregoing makes it clear that in all of the main areas of development both what can be achieved and how it is achieved are both directly and indirectly affected by the ongoing reductions in human and institutional capacities caused by the HIV epidemic. Sustainable Human Development if it is about anything is about strengthening human and non-human resource capacities, both as "good things in themselves", and because these are critical for improving living standards in a sustained way.
What Are the Key Principles to Guide What to Do in Sub-Saharan Africa in the Light of the Foregoing?

1. There exist many issues which are regional, in the sense of common to many countries, relating to responding to the effects of the HIV epidemic on systems. These have to include gender relationships where women’s differential access to economic, social and political resources and decision making power as fundamental to effective responses in all countries.

Seven system areas seem to stand out in terms of their generality and in terms of their importance for the sustainability of development in Africa. These are:-

- Public Administration
- Legal Systems and the Judiciary
- Education
- Health
- Economic Services (Private and Public - Banking, Insurance, Social Security, Transport/Communications, Water, etc)
- Directly Productive Sectors (Commercial and Smallholder Agriculture, Mining, Formal and Informal Enterprises, etc.)
- Civil Society Organizations

2. There are issues which are the outcome of factors which are common to many countries - perhaps more subregional than regional - where there are gains from common analysis and joint action. These are programme areas where there are economies of scale both in analysing the causal variables and in developing responsive activities. In part the support for common (regional/sub regional) action depends on synergy, i.e. that action taken by one country is less effective than action taken jointly by several countries. An example of a common factor which seems to be associated with HIV transmission and the spread of the virus beyond the borders of a single country is the mobility of labour, where regional/sub regional labour markets exist. Action to address the causes of inter-country labour mobility will require regional analysis of regional variables and the development of regional policies and programmes. Action by a single country is likely to be ineffective, and regional policies addressing common causes will be thus essential.

3. One priority area is to increase regional integration and trade where it is critical that policies and programmes be undertaken which limit the risks to populations through induced labour migration. The classical analysis of why trade is beneficial is in part based on the theoretical presumption that trade in goods and services substitutes for the movement of people, although in practice what one observes is a mixture of both. In a world of HIV it is thus even more essential that policies and programmes aimed at greater regional integration of economic activity be accompanied by policies to minimise induced labour flows. In so far as this is not achieved and poles of development act as magnets for labour from within a region then the benefits of greater economic integration will be offset in part (or wholly) by the costs of greater HIV infection in the population. To a degree this is already happening in
Southern Africa as labour, especially skilled and professional, is migrating to RSA from "dependent" countries in the region (adding to the traditional migratory flows).

4. At the present time many countries and organizations are responding to common problems and are attempting to develop policies and programmes. But many organizations, both public and private, are lacking in substantive experience in these "new" areas and need a great deal of technical support. There are opportunities here for cross-learning so as to avoid some of the costs of individualized experimentation. This is a valid argument for a regional supply of technical expertise, because attempts to develop policies and programmes individually in the area of HIV and AIDS as in other areas (such as governance, sustainable livelihoods and poverty, and so on) is clearly sub-optimal.

So common objectives and common problems which can be addressed and supported through technical cooperation become an argument for supplying technical expertise through regional/subregional activities. It follows that since the existence of the HIV epidemic now affects a wide swathe of development activities (see above), there is a generalised need for a regional capacity that can be accessed. A capacity that supports private organisations, communities, governments and others to respond to the epidemic through integrating HIV in their day-to-day activities. Strengthening regional/subregional capacities thus becomes an essential tool for more effectively responding to the epidemic. Now achieving this will be difficult at the best of times and will be doubly so under present conditions in SSA where the epidemic is systematically eroding human and institutional capacity.

**How Should It Be Done?**

A number of important considerations are relevant. These are:

1. First and foremost a deeper understanding of the systemic effects of the epidemic. For only if this is accepted will it be possible to develop and implement an effective response. There have been, and continue to be, many worthwhile activities that address both the causes and consequences of the epidemic. But these remain isolated and independent programmes and fail to address the fact that the HIV epidemic is systematically eroding development capacity across all sectors. Programmes need to be developed and implemented synergistically - they have to be planned and be undertaken in an integrated way. Mechanisms have to be established that ensure that activities of donors, governments and others are mutually supportive of the national response.

2. What principles should guide the actions of UNAIDS and the Cosponsors in the region? The guiding principle in allocative decisions ought to be that institutions do those things which reflect their comparative advantage. It has become evident that the UNAIDS Secretariat will not have the expertise nor the capacity to address the myriad of development issues raised by the epidemic. Nor should it try to do so, for this would defeat the central purpose of the UN approach to the epidemic. That is, that the Cosponsors should undertake in accordance with
their mandate those activities which reflect their competence and fundamental purpose. It is evident that while the World Bank has a lending programme for HIV and HIV-related activities, it has few intentions of developing the capacity in house (or indeed through its lending activities) that is needed for an effective response to the epidemic. While UNDP is presently the only organization with some capacity at HQ and in its Africa Regional HIV Project for addressing HIV and Development, this capacity is wholly inadequate to the task. Similarly with the other Cosponsors - all are capable and are engaged in limited activities that address sub-sets of the problems in SSA. But in the aggregate the activities are poorly focused and rarely integrated and are too limited in scale.

3. The objective of any activities has to be capacity development - providing technical cooperation in ways that lead to effective responses to the epidemic while simultaneously strengthening local/regional institutions and human resources. It cannot be said that in the past enough resources have been applied to capacity development. Analysis of the epidemic has been insufficiently complex, and the lessons from other areas of development have generally not been sufficiently applied to the design and implementation of HIV programmes. In deciding how to go forward it is crucial to learn the lessons of the past and to keep attention focused on capacity development in the region. This has to mean -

- a more explicit analysis of capacity needs in relation to the broad socio-economic and political situation in the region/subregion
- an initial mapping of the array of organizations, including networks, engaged in functions which relate to and can be drawn upon and strengthened by any proposed Africa Initiative
- an assessment of how to improve the organization and management of such organizations so as to raise their effectiveness, and
- the identification of people with expertise (including how to recognise relevant expertise, how to create it where it does not exist or is not recognised, how to manage its effective use, and so on).

Conclusions

The above more or less covers most of the factors which need to be taken into account in defining what to do and how to it. The details of what and how still need to be elaborated, but this ought to emerge from a discourse with partners in the Region and UNAIDS. It is unwise to be unduly prescriptive in these matters.

- It is almost certainly the case that some substantive presence in the Region will be necessary. This may not be a regional project(s) or inter-country team(s) as presently constituted -
probably ought not to be since something much more substantive may be needed.

C Resources and activities will need to be reasonably close to the point of use (and in Africa - and perhaps in sub-regional locations), and be capable of a sustained and ongoing relationship with users of the services being supported.

C Ways of working will need to be quite different from in the past; the objective has to be to strengthen capacity and to engage in those activities required in order to achieve this target. It means identifying institutions and individuals who have a commitment to work with UNAIDS, the Cosponsors and others on development-related aspects of the epidemic. It means looking intensively at the possibilities of using existing institutional structures and networks, and undertaking a capacity assessment of their needs and potential.

C It may mean working specifically in some sub-regions and not others, and in some countries and not others. These limitations of coverage in terms of country and programme development need to be established as far as possible in advance so that resources are not frittered away.

The way forward with developing a detailed plan is perhaps to undertake an operational review of the existing activities in the region as a matter of great urgency. To use the Review -

C as a way of identifying some of the areas of concentration of activity (what is discussed above),

C for assessing what exists in terms of materials, skills etc (capacity generally both in UNAIDS and the Cosponsors, and in existing and potential partners) that can be drawn upon in the future, including ways of involving other key UN agencies such as ILO and FAO,

C for reviewing the status of existing activities, identifying those which should be continued and expanded, including an assessment of the capacity needs of existing resource networks that are being supported in the region,

C for the mapping out of new ways of operating in the future, including building resource networks, developing new partnerships within the region/sub-regions and how to work more closely with other donors, national and international NGOs, CBOs, and so on,

C as a way of identifying organizational structures: the way forward may be some mix of centre and periphery - centres of resource management and problem identification which are allied to networks of institutions/individuals who provide most (not all) of the substantive activities of any Africa Initiative,

C as a mechanism for mobilising the political commitment of governments in Africa to an
expanded response to the epidemic.

Above all it means working in an integrated way - seeing the problems as being developmental and systemic, and seeking to find solutions which are themselves systemic rather than piecemeal and largely uncoordinated.
II. THE HIV EPIDEMIC AND THE EDUCATION SECTOR IN SUB-SAHARAN AFRICA

There are many ways in which the HIV epidemic intersects with the educational system and the following is simply a stylistic representation of some of the more important aspects of the relationship. Relatively little is known about these issues and systematic research is largely absent. As with all work on the epidemic it is essential that what is done meet certain criteria. These include-

- the involvement wherever possible of those affected by the epidemic including organisations that reflect their interests,
- sensitivity to the human rights of those affected by HIV and AIDS and the conduct of research in ways that are professionally ethical,
- prior involvement of those with policy and programming responsibilities to ensure that activities represent their needs,
- acceptance of the key principle that activities are undertaken in ways that maximise participation and have as an important objective the development of national capacity,
- ensure that activities do in fact lead to a better understanding of the issues of HIV for development and do contribute directly to policy formulation and to programme design and implementation,
- recognise the urgency of the need to establish effective programmes for the educational sector, given the gravity of the problems already being experienced by many countries in sub-Saharan Africa.

1. HUMAN RESOURCES AND THE EDUCATION SYSTEM

There is little direct information on the impact of the HIV epidemic on human resources directly employed in education in developing countries. What is probable is that HIV infection is at least as high amongst employees in the education sector as it is in the adult population, and there are some reasons for thinking that it may be higher. It follows that in countries with high HIV prevalence (with rates of HIV infection in adults of 15-25%) morbidity and mortality are reducing institutional and human capacities at an alarming rate. The situation is worse in urban than rural areas where HIV infection is generally much, much higher – an HIV rate of almost 50% in Francistown (Botswana) and in Harare (Zimbabwe) a third of pregnant women were already infected.
in 1995. HIV infection is more or less gender neutral in SSA, with slightly more women infected than men, although there are significant differences in the age distribution with girls and women infected at much younger ages than boys and men.

The human resources at risk are not confined simply to teachers but include all those who have roles in the delivery of educational services, whether in the private or public sectors. They include, therefore, those with important functions in public administration, i.e. in departments of education, whether at central or local level, and those involved in the education and training of teachers (in colleges, universities etc.).

Education is seen as having a key role in the transformation of developing countries although the situation in the poorest countries is that there remains a wide gap between hope and reality. The sector is seen as critical for human development where raising the skills and education of the population are perceived both as desirable goals in themselves and as a means to raising living standards for the country as a whole. Education is to a degree an example of a "public good" where there are social as well as private benefits. This is widely recognised, and is reflected in the international community's designation of basic (primary) education as a fundamental right.

Rights are one thing access to education another. One out of every two children of primary school age in sub-Saharan Africa is not attending school. There is enormous variation in both gross and net primary school enrollment ratios in Africa. Furthermore there remain significant gender and income inequalities in access to primary education, and the gaps between female and male educational enrollment ratios remain stubbornly large. The gender differences are especially great at secondary and tertiary levels where the proportions of the age group enrolled continues to be very small. It should also be noted that there are significant inter and intra regional variations in basic educational provision within countries – again often differentiated by income and gender.

In pursuit of these development objectives there has been considerable public and private investment in the educational sector. Much of this investment is embodied in those employed directly and indirectly in the provision of educational services. But this private and social investment is now threatened by the HIV epidemic which in high prevalence countries, especially in Africa, is eroding the human resource base of the education system in ways that are generally not being measured, not being assessed, and not being responded to.

What is the evidence of the impact of HIV and AIDS on the Education Sector?

There are no comprehensive data on the situation in sub-Saharan Africa on what is happening in education to institutional and human capacities. But there is partial and incomplete information which supports the proposition that capacity is being undermined by the HIV epidemic with potentially devastating consequences. The following are examples of the situation in three countries where the epidemic is mature:

- In Côte D’Ivoire a recent study has concluded that 8 teachers are dying from HIV and AIDS
every week – 5 at primary level and 3 at secondary.

C The World Bank study of Malawi (AIDS Assessment Study, 1998) concluded that for personnel (military, education and health), "By 1997, over 10% of the cohort in these sectors will have died from AIDS. By the year 2005 (less than 10 years from now) about 40% of this cohort are projected to die from AIDS. This loss in personnel does not include "normal" attrition such as early retirement, relocations, and deaths from other causes, that may be expected for any sector."

C In South Africa in 1998 there was a total enrollment in the primary and secondary sectors of 12,300,000 and these were supported by 370,000 educators, directly managed by 5000 subject advisors and inspectors, with a further 68,000 officials, managers and support personnel. The system costs the country some 22% of the national budget making it the largest single item. Additional private outlays on education are also undertaken by families, so the proportion of national output on education in total (public and private) is significant. While no direct estimates of staff losses are known it has been concluded that, "The indiscriminate path of HIV infection is as likely to cut down scarce mathematics and science teachers and effective principals as it is their less specialised peers. ...Education may well be blithely unaware of the potential for system disruption and even catastrophe that lies ahead." (HIV/AIDS and Human Development in South Africa, UNDP/UNAIDS, 1998)

**Undertaking a Situation Assessment**

An initial first step towards addressing the costs for the sector, and more generally for development, is the need to carry out a rapid assessment of the impact of the HIV epidemic on labour resources and on educational institutions (as defined above) in a number of high prevalence countries in sub-Saharan Africa.

This includes:

C assessment of the effects of the epidemic on labour absenteeism caused directly by higher staff morbidity (and indirectly by sickness of family members and relatives, attendance at funerals, etc),

C assessment of exceptional mortality amongst different classes of workers in the sector so as to identify the probable losses to skilled and professional and other employees that have already taken place,

C assessment of the direct costs to the sector of the impact of the epidemic on human resources in the educational sector due to absenteeism, labour turnover and replacement (including costs of disruption of services as well as costs due to recruitment, training, health and medical costs, support for dependents, etc).

C assessment of the indirect effects on the performance of educational institutions, the public services etc. of the HIV epidemic, due to losses of experienced and skilled human resources,
including qualitative evaluation of the effects of morbidity and mortality on morale and cultural cohesion in institutional settings,

- estimation of the probable effects of the HIV epidemic on the educational sector's capacity over the next 5-10 years, and

- evaluation of existing policies and programmes to address the impact of the HIV epidemic on the educational sector and recommendations for future action by governments, donors and other interested groups (including religious organisations, trade unions, professional associations, NGOs, CBOs, etc).

2. EDUCATIONAL SERVICES – ASSESSING NEEDS AND PERFORMANCE

There are at least three aspects of the issue of educational needs and performance that are worth looking at in detail. These are –

- the effects on the quantity and quality of the educational services that the sector is able to supply as a result of erosion of human resources and the consequent effects on institutional capacity (both in schools, colleges, universities and in educational support services),

- the changing needs of children, students and employers which will reflect in part the direct and indirect effects of the HIV epidemic (families have fewer resources to meet the costs of education and this will affect the gender balance of those seeking education, with fewer girls and young women at all levels of education),

- the fact that employers across the economy will increasingly attempt to substitute staff with less education for those with more training given the likely losses of labour due to HIV and AIDS; there will also be a changing balance of labour needs generally as expenditure and output are adjusted as a result of the impact of the epidemic on incomes and thus on the pattern of demand.

All of the above are actually and potentially researchable although some elements are easier to research than others. Thus it is possible through quantitative and qualitative analysis to undertake assessments of the changing capacity of the educational sector broadly defined, and to attempt to explain what is observed. This could be confined to sub-sectors or be more comprehensive (cover the whole of the educational sector). For the moment it might be easier to concentrate on what is happening to public primary and secondary education as being the segments of provision of greatest importance for most children and families. This analysis could subsequently be extended to cover tertiary education, including teacher training, and perhaps private sector provision at all levels.

How are families and communities responding?

Analysing the effects of the HIV epidemic on changing demands for education both in terms
of quantity and type could be more problematic – but this is researchable. Thus there is increasing evidence from many countries that families affected by HIV and AIDS are responding to pressure on resources by reducing their demands on the educational system. Typically this takes the form of taking girls out of school but decisions are also being taken with respect to the age on entry and length of schooling for boys and girls (related to the needs of households for different categories of labour as well as to constraints on the income of households). The changing gender composition of children in primary education will have knock-on effects on later stages of education which need to be understood and responded to. But they will also have important social and economic consequences for the achievement of sustainable human development, most obviously in terms of reducing gender based inequalities.

As noted above large numbers of children have experienced the trauma of one or both parents dying from HIV and AIDS. This has clear and important implications for these children in terms of the need for psycho-social and economic support that these children and their families require. One direct effect of HIV and AIDS for families is a deepening of poverty. This has implications for the education of children through its effects on nutrition, inability to pay school fees, meeting the cost of uniforms, transport costs, and so on. Furthermore, there is increasing evidence that extended family systems in Africa cannot cope, and that new and different problems are encountered by children who are fostered, and by the families who are fostering the children (with implications for child attendance at school and their performance when enrolled and attending). Even more worrisome is the condition of increasing numbers of children who have lost both their parents to HIV and AIDS and who are surviving as child-headed households – often socially excluded and suffering deep poverty.

What urgently needs to be better understood and responded to through policies and programmes are issues such as –

C How are families and children affected by the epidemic responding to the epidemic in ways that have implications for education, and why are they acting in the ways that they do?

C What are the social and economic development implications for children, families and communities of the changes that are identified through action research?

C What are the policy and programme implications of the identified responses and coping methods of families and communities for educational and other socio-economic policies (eg. nutrition supplementation programmes, income generation and poverty programmes, support to foster families and guardians, and so on)?

C What evidence is there that some communities are coping better than others with the effects of the epidemic on children and families, and are the lessons of such experience transferable?

Planning for the impact on the educational system

One obvious effect of the epidemic will be on the growth of the population and on its age distribution. There do exist models and projections of the impact of HIV-related mortality on
demographic variables - on under-five and adult mortality, and on fertility - and thus on the likely demand for educational services. An example of estimates which take account of HIV and AIDS is the UN 1998 Revision of the World Population Estimates and Projections - AIDS Mortality and Population Change (UN, November 1998). Since HIV infection is not evenly distributed in countries - but is often spatially concentrated and differentiated by social class - there will be important implications not only for the size of the age groups seeking education, but also for its geographical and socio-economic distribution.

Effective planning for education needs to be based on the changing size and distribution of those seeking education and thus country projections need urgently to be made so as to better inform policy.

Policy development in education and other sectors

Ministries of Education and other relevant government and private sector organisations need to look again at policy and programme development for education. Support needs to be provided for re-evaluation of the Education Sector in the light of the mounting evidence of the impact of the HIV epidemic on capacity and on needs. In part this is so as to be able to respond to the effects of HIV on the education sector itself, and in part so that the sector can respond more effectively to the needs of the economy and society. It follows that:

There is an urgent need to undertake assessment of the effects of the epidemic on the supply of specific skills in the labour force. These include high level professional skills (doctors, lawyers, water engineers, accountants, university teachers, school teachers, and so on) as well as other skills (mechanics, carpenters, bank tellers, nurses, agricultural extension workers, etc). Modelling and predicting the changing supply of labour and the needs of different sectors will be difficult but it is worth attempting and it can be done. This is a first step towards identifying the changes required of the educational sector in terms of the pattern of its activities in meeting the changing balance of needs for labour brought about by the epidemic. It is possible to plan for this outcome and not simply leave it to the market (for doing this will have results which are totally inadequate and inefficient).

There is an urgent need to review educational policies so as to ensure that these are consistent with educational capacity and needs. Thus decisions are required on issues relating to teacher supply where critical issues are emerging about losses of capacity and how to replace it (through review of teacher training), as well as a myriad of issues relating to the funding of education (particularly issues of fees which an increasingly impoverished population cannot meet).

The educational sector needs to begin to plan for and to respond to a changing set of demands which will inevitably face it. In part it will have to respond because teachers, school administrators etc. will in any case suffer mortality such that there will be increasingly severe problems of managing and meeting demands. But there are broader issues at work also - the need to adjust educational institutions to a changing set of requirements for different types of education
(less costly), different quantities of education, and with different skill and training components.

3. RESTRUCTURING EDUCATIONAL INSTITUTIONS - EPIDEMIC IMPERATIVES

There are many internal factors operating on the performance of educational institutions which will generate a momentum for change in the ways that they operate. In part these are endogenous – such as the morbidity and mortality of staff which will inevitably change what is done in schools and colleges and how it is done. For example, there will have to be adjustment to teaching inputs to reflect the additional burdens falling on women who everywhere are expected to take on additional responsibilities (such as the care of those affected by HIV and AIDS). It follows that adjustment of workplace conditions will be undertaken by institutions as a response to changing labour supply conditions and to a degree also in response to the demands being placed on them (by parents and others).

One important change that has been placed on educational institutions in many countries has been the expectation that they introduce sex education in some form or other into the curriculum. This is recognition of the role that information can play in prevention of HIV transmission where it is assumed that schools and colleges can influence the sexual behaviour of young people. How far they have in fact been able to achieve changes in behaviour is a moot point, and there is a good deal of evidence that providing information is insufficient by itself in bringing about sustained behaviour change. For a review of some of the evidence see Impact of HIV and Sexual Health Education on the Sexual Behaviour of Young People: A Review Update (UNAIDS, 1997).

The evidence on HIV infection and young people is deeply worrying. Data suggests that about half of new HIV infections are in young people under the age of 25 years – precisely the cohort that is the clientele of the educational system. Even more worrying is the fact that in sub-Saharan Africa the rate of HIV infection in girls and young women is much, much higher than it is in young men of the same age (by factors of 5 or 6 – even higher in some countries). There is also clear and unambiguous evidence that sexual activity begins at a very young age – often as low as 10 years, such that delaying sex education to later stages of education will simply be too late for many children. It should also be noted that about half the age group are excluded from primary education and will never be reached at all. Similarly, many boys and girls never reach secondary education and thus will be entirely bypassed by delaying sex instruction to that level (this is especially worrying for girls given the gender disparities in enrolment at secondary level).

What follows from the foregoing? There is clearly an important role for educational institutions in HIV prevention, care and support. The question is, "what precisely is their role" and how can one ensure that activities undertaken by schools and colleges actually does make a difference to HIV prevention (and increasingly to care and support)?

Since such a significant proportion of the relevant age group for reducing HIV transmission is
engaged with the educational system it follows that these institutions do need to develop appropriate and effective ways to reach young people.

Some school and college systems have understood the need to develop activities for young people but these seem generally to be unsuccessful in changing sexual behaviours as is evidenced by the incidence of new HIV infections in almost all countries in SSA.

Extremely worrying is the fact that levels of HIV infection for girls and young women are much higher than in boys and young men of the same age. Many factors contribute to this state of affairs but it is clear that young women have to be given greater control of their sexual lives. In part this means giving young women the means to effectively resist sexually exploitative relationships, including such relationships with men in authority in the educational system.

The central principle of present prevention activities for young people, both in-school and out-of-school, is that they should act "responsibly", i.e. they should modify their sexual behaviour in ways that protect them from HIV infection.

But there is a clear conflict between the institutional context for delivering the message of "responsible behaviour" and the absence of responsibility in the lives of young people. This is most obvious in the context of schools and colleges where young people are generally subjected to regimes which are directive, sometimes exploitative, and offer few opportunities for participation in educational matters.

There exists, therefore, a disconnect between what is being urged on young people in terms of responsible sexual behaviour in a world of HIV and AIDS and the reality of their lives – particularly the directive nature of educational processes and institutions. It is unsurprising, therefore, that suggestions that young people act responsibly in their sexual lives falls on deaf ears.

The implications of the above are clear for all to see. If responsible sexual behaviour is essential for slowing the growth in new HIV infections amongst young people then the context of their lives has to be changed dramatically. The educational system is simply a microcosm of society as a whole and reflects its core values – including hierarchical structures based on gender and age. It follows that the changes in the structural characteristics and values in schools and colleges required for effective responses to the HIV epidemic need to be supported by similar conditions in society as a whole.

This is as much true of the conditions within families as it is in schools and colleges. For the latter it requires changes in organisation and in culture so that youth can actively be involved with their education in all areas where they can make a contribution (including the governance of such institutions).

What is needed is no less than revolutionary change in the ways in which schools and colleges function. This will require prior changes in most countries in the management of education
by central government ministries of education and by local authorities, and by others with similar functions (such as religious institutions). It means, for example, re-assessing policies of expelling young women who become pregnant (but where there are no sanctions on young men). But until these changes of the loci of responsibility are brought about there will be little scope for changing the sexual behaviour of young people. The inevitable consequence of not changing the reality of the lives of young people in schools and colleges will be ever increasing rates of HIV infection.

**The issue is how to bring about such a change in the functioning of educational institutions – a requirement that the culture of education be realigned with the needs of young people living in a world of HIV and AIDS.** Defining the problem as one of making sex education part of the school and college curriculum misses the point entirely. Rather the issue is how to ensure that young persons are provided with the opportunity to act responsibly *tout court*, and not just in their sexual lives. It also means giving meaning to their lives – and not just in an educational context. For many young people, both those in school and those who are not, what is missing is a supportive economic and social structure that addresses poverty, and ensures that youth have access to employment and to sustainable livelihoods.

What is needed now is an assessment of those few cases where young people have been given responsibilities, in sports clubs, anti-AIDS Clubs, and so on, and to identify the conditions which seem to determine their success. To review and to evaluate those countries where HIV incidence amongst young people has fallen, such as Uganda and Thailand. To then experiment with changing important institutional conditions within schools and colleges so as to bring about the shift in the locus of responsibilities in ways that actually make a difference to the context of young people’s lived experience. To relate these organisational and value changes within the educational structure to supportive economic and social environments. Then, and only then, will it be possible to change the sexual behaviour of young men and women in ways that will in a sustained way reduce the transmission of HIV.

**CONCLUSIONS**

A functioning and effective educational system is seen as central for achieving the goals of sustainable human development. In part because an educated population which embodies the skills and capacities needed for development is essential if production levels are to be increased, and in part because one, possibly the most important, of the benefits of development is an educated society. To achieve these outcomes countries have everywhere invested in education – in teachers, administrators and other service personnel, and in children. Even in the poorest region of the world – sub-Saharan Africa – there has been extensive investment in human capital over many decades. This can be measured in various ways; some 20% of total public expenditure is spent on education. This is equivalent to almost 6% of GNP for the region as a whole – year in and year out. This represents an enormous cumulative investment over many years in institutions and in human resources.
These investments by countries, by the often very poor citizens of many countries in Africa, are now increasingly threatened by the HIV epidemic. Not only is much of the previous investment in education – in literacy, vocational and professional skills and qualifications – at risk, but so also is current and future investment in young men and women. Human resources are being lost at an alarming rate in many African countries, representing losses of investments which poor countries can ill afford to bear.

It follows that in a world where resources (financial and human) are scarce, and where the HIV epidemic is systematically eroding the capacity for development, that urgent actions are needed to ensure that socio-economic sectors do not collapse. Not the least of the sectors which is threatened is education where factors are operating which are systematically destroying what can be achieved. But a functioning education sector is both fundamental to achieving sustained development and eradicating poverty and to an effective response to the HIV epidemic.

The foregoing discussion has identified some of the more important and urgent actions that are needed and there is no need to summarise what these are. On the other hand it is worth emphasising what is required for effective policy and programme response. It is to think in terms of systems, and to analyse and respond in ways that are themselves systemic. To understand that the educational sector is an integrated process for ensuring that citizens possess appropriate capacities – embodying the human qualities required for sustainable development. But unless sectoral capacity as a whole is protected it is hard to see how the objectives of development can be met.
Biographical Note

Desmond Cohen is an economist with university teaching experience in Africa, Canada, the UK and the USA. Formerly he was a Governor and Associate Fellow at the Institute of Development Studies, University of Sussex in the United Kingdom and, until 1990, he was Dean of the School of Social Sciences. He has both research and applied macro-economic policy experience in a number of African and Asian countries. Previously he was an adviser to the British Treasury on international financial policy. In 1997-98 he was Director of the HIV and Development Programme (UNDP), and currently he is Senior Adviser on HIV and Development.

About UNDP

The United Nations Development Programme is the UN's largest source of grant for development cooperation. Its funding is from voluntary contributions of Member States of the United Nations and affiliated agencies. A network of 132 country offices and programmes in more than 170 countries and territories helps people to help themselves. In each of these countries, the UNDP Resident Representative normally also serves as the Resident Coordinator of operational activities for development of the United Nations system as a whole. This can include humanitarian as well as development assistance.

UNDP's main priority is poverty eradication. Its work also focuses on the closely linked goals of environmental regeneration, the creation of sustainable livelihoods, and the empowerment of women. Programmes for good governance and peace building create a climate for progress in these areas. Country and regional programmes draw on the expertise of developing country nationals and non-governmental organisations, the specialised agencies of the UN system and research institutes. Seventy-five per cent of all UNDP-supported projects are implemented by local organisations.

Ninety per cent of UNDP's core programme is focused on 66 countries that are home to 90 per cent of the world's extremely poor. UNDP is a hands-on organisation with 85 per cent of its staff in the countries that it supports.