



HIV/AIDS, Food and Nutrition Security: Impacts and Actions

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This paper represents a collaboration between a research organization and an operational agency, both concerned with issues of food and nutrition security, and both concerned with how best to respond to the raging HIV/AIDS crisis in sub-Saharan Africa. It builds on and complements previous work done by Haddad and Gillespie (2001), which in turn benefited from a consultation on HIV/AIDS and rural livelihoods, held at IFPRI in January 2001, and supported by DFID. It also encompasses the main findings of five country studies of heavily impacted countries undertaken by WFP, aimed at improving understanding of the appropriate uses of food aid in prevention, care and mitigation.

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1 Introduction

The magnitude and depth of HIV/AIDS impacts in sub-Saharan Africa are staggering. Livelihoods are being devastated and the food and nutrition security of millions of households seriously undermined. This paper is an attempt to shed light on the various impacts and pathways through which HIV/AIDS affects food and nutrition security; the types of responses made by households and communities in trying to reduce these effects; and their policy and programme implications, including any lessons from recent attempts at direct impact mitigation. The specific role of food aid is examined, since inadequate access to food is one of the first signs of distress in an HIV/AIDS-impacted household.

Over 36 million individuals are currently living with HIV/AIDS, 95 percent of whom are from developing countries. Assuming that each HIV/AIDS case directly influences the lives of four other individuals, a total of more than 150 million people are being affected by the disease (Barnett and Rugalema 2001). Sub-Saharan Africa is the region most affected, where HIV/AIDS is now that area's leading cause of adult morbidity and mortality (see Table 1). Most, if not all, of the 25 million people in sub-Saharan Africa who are living with HIV/AIDS will have died by the year 2020, in addition to the 13.7 million Africans already claimed by the epidemic.

HIV/AIDS is also spreading dramatically in Asia. India is estimated to have 3 to 5 million HIV infections and, though national data are not reliable, some Chinese specialists estimate up to 10 million HIV infections in China. Asia will overtake sub-Saharan Africa in absolute numbers before 2010, and by 2020 Asia will be the HIV/AIDS epicentre (Barnett and Rugalema 2001).

Table 1—HIV/AIDS by region, December 2000

Region	Epidemic started	Adults and children living with HIV/AIDS	Adults and children newly infected	Adult prevalence rate in percent	Percent of HIV-positive adults who are women
Sub-Saharan Africa	Late 1970s - early 1980s	25 300 000	3 800 000	8.80	55
North Africa and Middle East	Late 1980s	400 000	80 000	0.20	40
South and Southeast Asia	Late 1980s	5 800 000	780 000	0.56	35
East Asia and Pacific	Late 1980s	640 000	130 000	0.07	13
Latin America	Late 1970s - early 1980s	1 400 000	150 000	0.50	25
Caribbean	Late 1970s - early 1980s	390 000	60 000	2.30	35
Eastern Europe and Central Asia	Early 1990s	700 000	250 000	0.35	25
Western Europe	Late 1970s - early 1980s	540 000	30 000	0.24	25
North America	Late 1970s - early 1980s	920 000	45 000	0.60	20
Australia and New Zealand	Late 1970s - early 1980s	15 000	500	0.13	10
Total		36 100 000	5 300 000	1.10	47

Note: Adulthood is 15–49 years of age. Source: <http://www.unaids.org>

1.1 Is HIV/AIDS a unique shock?

The HIV/AIDS pandemic is transforming the landscape upon which development must take place in much of the developing world. Like other infectious diseases that become epidemic, HIV starts out as an idiosyncratic shock that turns into an aggregate shock. But it is different from other diseases or shocks for the following reasons:

- *It is incurable and fatal.* It kills the most productive members of society, thus increasing household dependency ratios, reducing household productivity and caring capacity, and impairing the inter-generational transfer of local knowledge and skills. The effect on the household may be permanent; certain premature death undermines the incentive to accumulate assets and the very survival of the household unit is threatened.
- *This bleak prognosis makes intervention efforts (prevention or mitigation) difficult.* Most development interventions can offer some hope of some improvement in human welfare. Effective HIV prevention can offer only an absence of decline. Effective HIV mitigation can offer only a temporary improvement in human welfare from an already HIV/AIDS-lowered level.
- *Life-prolonging treatment is too expensive* for most HIV-infected people, although there is significant scope for major cuts in the prices of drugs.
- *It is socially invisible.* The private nature and divergent cultural attitudes towards sex lead to silence, denial, stigma, and discrimination at many levels. This makes effective prevention and mitigation difficult to implement.
- *HIV has a very long incubation period* between infection and full-blown symptoms during which individuals are infective. In the absence of routine HIV testing, infected individuals have less of an incentive to alter risky behavior and a long period over which to undertake those activities. Both invisibility and long duration increase chances of HIV transmission. Individuals who are unaware of their HIV status and their families cannot begin to alter livelihood strategies in response to the coming shock.
- *It has both rural and urban dimensions.* As with poverty, the death of one or more income-earners in rural households often forces survivors to migrate to seek work in cities. A death of an urban worker may force survivors to send children back to rural extended families to be cared for.
- *It affects both the rich and the poor,* though it is the poor who are most severely exposed and most severely impacted (see section 1.2).

- *It affects both sexes but is not gender-neutral.* To the extent that women are marginalized and powerless, they are more at risk of being exposed to HIV. Women are also more likely to succumb rapidly to HIV/AIDS, as they are more biologically vulnerable (see section 1.3).
- *Finally, one of the most disturbing aspects of the pandemic is the fact that, as it intensifies with a parallel need for action, the actual capacity to act is decreasing.* Organizations that are located in areas that are experiencing a high HIV/AIDS prevalence, are characterized by high absenteeism, high turnover, a loss of institutional memory, and reduced innovation. As individuals in government and nongovernmental organizations continue to die, the capacity gap—between what is needed and what can be delivered—is becoming an abyss.

1.2 The poverty dimension

HIV/AIDS and poverty (a large part of which relates to food insecurity) interact in a vicious circle. Poverty increases the exposure to, as well as the impact of HIV. It diminishes the perceived value of avoiding HIV (“we will die soon anyway”), it increases the relative costs of both avoiding and treating the illness, and it exacerbates the impact of weakened immunological integrity as a result of a more hostile bacterial and viral environment. Poverty also increases the radius of impact of HIV on family and friends (for the poor, informal coping mechanisms are more dependent on family and friends and less so on insurance companies and the state).

In the reverse direction, HIV/AIDS also impoverishes. It increases poverty in the short to medium run by stripping assets of many kinds—human, social, financial, physical, natural, informational, and political—as described in section 2. Asset rundown leaves individuals, families, and communities more exposed to future shocks—children are pulled out of school to help with labour needs and young women may be forced to become commercial sex workers.

Nevertheless, as with other aggregate shocks, the nonpoor are thought less able to avoid HIV infection and its impacts. While this might generate wider political support to confront AIDS, it undermines the ability of middle-income-staffed governments, private-sector firms and other formal organizations to mobilize human resources to combat it. There is also a danger that public-sector health budgets will become more skewed towards the wealthier and the more vocal urban HIV/AIDS population to the detriment of the rural poor in general. Primary health care clinics may become increasingly poorly equipped. Waiting and travel times for the poor might also increase as a consequence, further stretching the demands on the remaining able-bodied labour.

1.3 The gender dimension

Women are biologically, socio-economically, and socio-culturally more at risk of HIV infection than men (Gupta 2000; Topouzis 2000). Biologically, the risk of becoming infected with HIV during unprotected vaginal intercourse is between two and four times higher for women than for men (World Bank 1997). Women are also more

susceptible to other sexually transmitted diseases (STDs) and less likely to seek treatment. If untreated, STDs may multiply the risk of HIV transmission by 300–400 percent. Such biological susceptibility further threatens reproductive health status; pregnancy and child-bearing now involve considerably greater risks not only to the women but to their future offspring, while STDs can be potentially life-threatening.

HIV/AIDS also exacerbates social, economic, and cultural inequalities that define women's status in society. Women are often more susceptible to HIV infection and more vulnerable to AIDS impacts than are men for the following reasons: the predominant culture of silence and passivity regarding sex stigmatizes women who try to access STD treatment services; the norm of virginity restricts adolescent girls' access to information about sex, and the risk of sexual coercion; economic vulnerability increases the chance of the exchange of sex for food, money, etc.; male power is often manifested in sexual violence; susceptibility to HIV infection is increased through sexual practices, including genital cutting, dry sex, and ritual cleansing; and finally women are discriminated against with regard to inheritance rights.

Other important changes in gender asymmetries relate to less personal but nonetheless crucial assets (see section 2.2 on livelihoods). Premature adult male death may deprive the female of the necessary time to build up a set of extrafamily levers—such as access to community land, to community groups, and to microfinance groups—that can be used to exert power within the family. If property and user rights for a whole range of assets are not clearly and equitably defined or are not enforced, women are likely to become less able to shape their own destinies. This lessening of women's relative power will tend to be reinforced via the subsequent diminished ability to control decisions relating to their own needs and those of their children in terms of health care, food intake, and work time.²

2 Impacts of HIV/AIDS on nutrition, food security and livelihoods

In this section, we examine the type of impacts that HIV/AIDS may have on households and communities with regard to their food and nutrition security, in the context of their livelihoods, particularly with regard to rural populations dependent on agriculture.

There are three points to be made at the outset. First, impacts are often revealed through the responses, or “coping strategies”,³ made by households and communities. In this paper we prefer to use the term *responses* rather than *coping*.

² It should be noted, however, that the greater economic independence of women under conditions of weak control of choice over sexual partners may actually place the former at a greater risk of HIV infection if such independence is associated with greater livelihood mobility.

³ The term “coping” may not always be accurate, simply because many responses are those of distressed households that are not coping. Coping implies a reversible management strategy. It also somehow suggests that the adoption of such strategies is not too costly. The reality is that many households are forced to make distress sales or change livelihood strategies in ways that are irreversible. The price of such short term “coping” may be long-term deprivation or even destitution.

Second, it is important to differentiate susceptibility to HIV infection—that is, the likelihood of becoming infected with the virus—from the vulnerability to the different types of impacts, once infection has taken place.

Third, it is important to recognize that different stages of the HIV/AIDS epidemic will have different indicators, different impacts and different responses. There are also differences between countries or sub-national regions with regard to the gradient and the peak prevalence of the HIV/AIDS epidemic, relating in part to the velocity of transmission, which itself is related to behaviors and the pathogenicity of the particular HIV strain. Box 1 presents an illustrative scenario of the dynamics of HIV/AIDS impact and response in an agriculture-based household.

Box 1: Dynamics of HIV/AIDS impacts and household responses in an agriculture-based livelihood

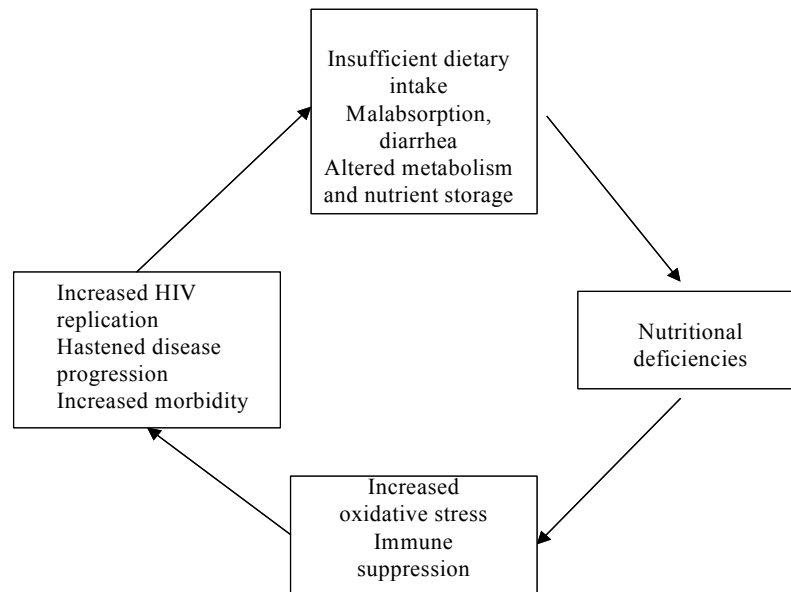
The following is an *illustration* of possible impacts and responses on an agriculture-dependent household containing an adult who contracts HIV. Many of these impacts have been shown in studies; some are speculative, albeit plausible. Context is obviously crucial with regard to likely type and sequencing of impacts and responses at different stages of the epidemic.

- Adult becomes sick
- S/he reduces work
- Replacement labour is “imported”, perhaps from relatives
- Adults work longer hours on farm
- Health care expenses rise (drugs, transport)
- Household food consumption is reduced
- There is a switch to labour-extensive crops and farming systems, small livestock
- Nutritional status deteriorates
- Adult stops work
- Increased care given to sick adult, with less time for child care
- Divisible assets disposed, e.g. livestock
- Debts increase
- Children drop out of school to help with household labour
- Adult dies
- Funeral expenses incurred
- Household may fragment as other adults migrate for work
- Cultivation of land is reduced, as more left fallow
- Inappropriate natural resource management may lead to increased spread of pests and disease
- Effects of knowledge loss intensify
- Increased mining of common property resources
- Access to household land and property may be affected (re: rights of surviving widow)
- Solidarity networks strained, possibly to point of exclusion
- Partner becomes sick
- Downward spiral accelerates

2.1 Impacts on Nutrition

HIV/AIDS has significant impacts on nutrition at the level of the individual, household and community. Malnutrition in turn increases both the susceptibility to HIV infection and the vulnerability to its various impacts.

Figure 1 —The vicious cycle of malnutrition and HIV



Source: Semba and Tang (1999)

At an individual level, HIV infection essentially accelerates the vicious circle of inadequate dietary intake and disease that leads to malnutrition (see Figure 1), while malnutrition increases the risk of HIV transmission from mothers to babies and the progression of HIV infection (Piwoz and Preble 2000). HIV-infected individuals have higher nutritional requirements than normal, particularly with regard to protein (up to 50 percent increased), and energy (up to 15 percent). They are also more likely to suffer a loss of appetite, even anorexia, thus reducing dietary intake at the very time when requirements are higher. Moreover, such interactions are thrown into starker contrast for the poor, who are more likely to be malnourished prior to becoming infected.

Research shows that the onset of the disease and even death might be delayed in well-nourished HIV-positive individuals, and diets rich in protein, energy and micronutrients help in building resistance to opportunistic infections in AIDS patients (ACC/SCN 1998).

Mother-to-child transmission (MTCT, or vertical transmission) of HIV is a major nutritional issue. MTCT may occur during pregnancy, at birth, or via breastfeeding. In a recent study, *exclusive* breastfeeding has been seen to confer a significantly lower risk of

HIV transmission than partial breastfeeding. Observational data have shown that three-month-old infants of HIV-positive women who were breastfed exclusively have the same risk of contracting HIV as infants who were never breastfed (Coutsoudis et al. 1999). In contrast, infants who were partially breastfed had a significantly higher risk. A follow-up prospective study of 551 HIV-infected pregnant women in South Africa has shown that infants exclusively breastfed for 3 months or more had no excess risk of HIV infection over 6 months than those never breastfed (Coutsoudis et al. 2001).

Several biological mechanisms could explain why exclusive breastfeeding might be protective compared with partial breastfeeding. These include reduced exposure of the infant to bacterial contaminants and food antigens, thus reducing immune activation (Cebra 1999), increased integrity of the intestinal wall (Goto et al. 1999), development of microflora that limit adhesion and growth of pathogenic organisms (Mackie et al. 1999) and reduced risk of sub-clinical mastitis, which occurs during breast engorgement (Willumsen et al. 2000). Research is under way to confirm if these important observational findings are in fact causal. Infants of mothers who have an adequate vitamin A status might have a reduced risk of vertical transmission (Friis 1998). The policy and programme implications of MTCT are discussed in section 4, Box 2.

These are the predominant direct impacts on infected individuals. But there are other important *indirect* impacts at the household and community levels. These may be brought about by, for example, a diminished capacity of caregivers to care for themselves, their young children, or AIDS-infected household members. In many poor households, even those unaffected by the pandemic, child care may be compromised in the short term to ensure food security in the long term. Any adverse impacts on the quality or quantity of child care of such decisions are likely to be exacerbated by shocks such as HIV/AIDS, which may drastically reduce household caring capacity.

2.2 Impacts on agriculture and other livelihoods

A livelihood represents the interaction between assets and transforming processes and structures that generate a means of living, all conditioned by the context that individuals find themselves in (Carney 1998). Agriculture is the main livelihood of most rural populations in sub-Saharan Africa. In this section we examine the hypothesized impacts of HIV/AIDS on different types of assets and the actual impacts on food and nutrition outcomes whenever the evidence permits. Assets are important to livelihoods only if they can be accessed and have an ability to support livelihoods when accessed. The rules governing access and value can be broadly labeled as “institutions.” Access to assets and the value of the assets tend to be determined by cultural norms and values and by formal laws, policies, and organizations. Gender aspects are covered in section 1.3, and further discussion is provided by Haddad and Gillespie 2001.

Regarding assets, HIV/AIDS strips individuals, households, networks, and communities of different forms of capital—human, financial, social, physical and natural—as described below.

2.2.1 *Human capital*

Most obviously HIV/AIDS attacks human capital. Infected individuals eventually die prematurely. Living but infected individuals are rendered less productive once AIDS emerges, due to a series of opportunistic infections, of which tuberculosis is the most frequent. A scale of the impact on mortality and morbidity is given by numbers on disability-adjusted life years (or DALYs) (Murray and Lopez 1996). At a global level, HIV/AIDS was 28th in terms of causes of DALYs in 1990, and is projected to be 10th in 2020. In sub-Saharan Africa HIV/AIDS is projected to be the 3rd leading cause of DALYs in 2020 (from 7th in 1990) and for India HIV/AIDS is also projected to be the 3rd leading cause in 2020 (from very low down the list in 1990).

These figures, dramatic as they are, do not capture the full impact of HIV on labour in terms of livelihood generation, because the labour of healthy individuals is diverted into other crucial activities such as caring for those infected and attending the funerals of those who have died. The measured impact of these changes in demographic profile on household dependency ratios is inconclusive. This may reflect the household or community's response to the shock in terms of "importing" prime-age labour and "exporting" children via family or informal nonfamily networks (White and Robinson 2000). These labour movements may entail costs to the children in terms of the quality of care provision and may exacerbate the spread of HIV/AIDS if the "imported" labour comes from heavily infected areas. These are areas for further research.

With regard to agriculture, obviously farming systems that are less dependent on labour will be better able to respond to these losses. Studies have investigated the specific characteristics associated with vulnerability and resilience of farming systems in the face of loss of labour (Gillespie 1989; Barnett and Blaikie 1992). "Replacement" labour can be found either via social networks or via the labour market. Otherwise less labour-intensive, livelihood-sustaining ways of farming land have to be developed.⁴ Both types of labour replacement strategy run the risk of new HIV infection. Labour market help might not be affordable for families affected by HIV. Moreover, the low labour intensity strategy is by no means guaranteed to be more livelihood sustaining than the system it replaces.

Other impacts on land and land use include the cultivation of crops that are less labour intensive, but less nutritious (e.g. some tubers) and the fallowing of land. If the family can afford not to use the land, this will improve its quality for future cultivation. On the other hand, non-use of land may make the family vulnerable to loss of land rights. As highlighted by those with traditionally weaker land rights (e.g. some women and orphans) greater clarity and equity with respect to local property rights is particularly important. Additionally, it is important to take into account the current diversity of livelihoods that farmers exhibit and the potential they have to diversify further into nonfarm activities that are less labour-dependent (Rugalema 1999a; Topouzis 2000).

⁴ At the semi-subsistence level, the impacts on farming practices have been summarized in a number of reviews (White and Robinson 2000; Topouzis 2000; FAO/UNAIDS 1999; Barnett and Halswimmer 1995; and Barnett and Blaikie 1992).

The impacts of HIV/AIDS on the commercial agricultural sector are less well understood (Rugalema 1999b; White and Robinson 2000). If the commercial sector is dependent on migrant labour it is susceptible to HIV/AIDS, more so if the labourer is resident without his or her family. Social networks will also tend to be weaker for labourers in the commercial sector. However, the commercial sector can be a force for good in the sense that it can provide information and training for prevention, and it might provide opportunities for AIDS orphans to learn some essential agricultural skills.

But human capital is about much more than manual labour. It is also about knowledge. The striking-down of adults in their prime by HIV/AIDS severely reduces the ability of individuals to transfer knowledge both within their generation and from their generation to the next. Both verbal and role model mechanisms are interrupted by HIV/AIDS. New generations are less able to draw on the body of knowledge that dies along with their parents and they are deprived of “learning by doing” under the guidance of someone more experienced.

The ability to acquire and use information is also impaired by HIV/AIDS as younger generations are pulled out of school to bolster the family’s ability to provide care to the ill and to maintain its current livelihood, or develop new ones. This is an example of an ultimately destructive “coping strategy.” Tomorrow’s livelihoods are being sacrificed in order to hang on to today’s.

2.2.2 Financial capital

Financial capital is damaged by HIV/AIDS in a number of ways. Because drug, burial and related transport expenses become major items in budgets, families need to find ways to maintain current consumption levels. In terms of financial capital services (credit, savings, and insurance) poor families either have to sell stores of value (e.g. jewelry and livestock), assets (e.g. equipment or tools), borrow funds in a sustainable manner, or—which seems most unlikely—have access to some kind of insurance, health, or otherwise.

The poor invariably are reliant on informal credit at high interest rates or on group-based microfinance products. Unfortunately both of these types of services tend to be spatially concentrated and hence vulnerable to aggregate shocks. Even when the epidemic is in its early stages, the infected family is less able to avoid default and hence is less attractive to group-based liability schemes. Despite these limitations, private credit has been described as the key distress response to adult death from HIV/AIDS—at least in the well-studied area of Kagera in Tanzania (Lundberg et al. 2000). No doubt the ability of microfinance institutions to respond to the changing needs of their clients will be crucial to HIV/AIDS mitigation efforts (see section 4).

2.2.3 Social capital

Social capital—or the strength of associational life, trust, and norms of reciprocity—may be undermined by HIV in several ways. First, social reproduction in

terms of the role-modeling of norms of trust and good citizenship is impaired. Future generations not only do not witness farming practices they also do not experience the informal exchanges of knowledge, tools, and animal draught labour that are often embodied in such livelihood activities.

Second, the incentives for coordinated group action may be diminished as a result of the heavy discounting of the future benefits of such action. This has a particularly negative consequence for natural resource management practices that are dependent on collective action such as integrated pest management, social forestry, and watershed development (Knox, Meinzen-Dick, and Hazell 1998).

Third, the formal institutions that also contribute to social capital formation, such as church groups, sports clubs, and professional associations are likely to be weakened as members die.

Fourth, social networks tend to be spatially concentrated. The networks that are more heterogeneous should have a greater carrying capacity. However, members who are highly mobile or live in urban areas will make a network more susceptible to HIV/AIDS.

Fifth, social capital may be weakened through an increased exclusiveness of network membership. The stigma attached to HIV/AIDS is not conducive to the establishment of crosscutting ties across the different strands of social capital (Narayan 1999). HIV/AIDS might lead to the generation of a type of social capital formation that is exclusive.

One final point to note is that social networks might be strengthened initially by the threat of the large-scale epidemic. Collective action might be stimulated in the face of a community-wide threat before that threat begins to undermine the ability and incentive to act collectively. The strength of social capital networks to stand up to sustained aggregate assault is an area that needs more attention.

2.2.4 Physical and natural capital

The basic infrastructure and productive equipment that are relied upon for the pursuit of livelihoods also comes under threat as a result of HIV/AIDS. The possible sale of productive equipment or mortgaging of land in response to large health and funeral expenses has been noted as has the possible neglect of health infrastructure for the poor. As time becomes an ever-scarcer commodity in HIV/AIDS areas, access to water and energy sources must be improved, particularly given the fact that such access relates to activities that are socially determined to be the responsibility of women, who most often care for their family members, irrespective of their HIV/AIDS status. HIV/AIDS might undermine the ability of communities and user groups to pool risk and act collectively to sustainably manage common property including rangeland, cropland, and river basins.

Clear and equitable delineation of property and land rights becomes more important as individuals leave their dwellings to search for alternative livelihoods, or to help out friends and families outside their community. If dwelling or land rights are linked to physical presence, property rights might be impaired, especially if widows and orphans are the primary claimants.

3 Policy and programming principles

Before we turn to the types of sector-specific policy and programmatic responses to HIV/AIDS, this section provides a list of key generic principles for maximizing the contribution of food and nutrition programming to HIV/AIDS impact mitigation. These principles have been derived from a review of the existing, accessible literature in this area, and from the main findings of a series of recent case studies carried out by WFP. These case studies (in Cambodia, Ethiopia, Kenya, Uganda and Zambia) examined ongoing food-assisted activities of WFP and other non-food interventions with the aim of identifying the appropriate roles for food aid in HIV/AIDS prevention, care and mitigation.

3.1 Do no harm

Any public-sector attempts to respond to HIV/AIDS in terms of mitigation must “first, do no harm.” A number of private-sector responses have deliberately reduced the abilities of households with infected members to mitigate the effects of HIV/AIDS. Examples include the capping of medical benefits for HIV-infected employees, reductions in funeral leave, and reductions in company contributions to funeral expenses—all examples from South Africa (White and Robinson 2000). More difficult to detect, but perhaps less difficult to amend are the interventions or policies that inadvertently increase the risk of HIV infection or impair the ability of households and communities to mitigate the effects of AIDS. Actions that reinforce gender imbalances in power or those that displace individuals without adequate HIV monitoring and prevention efforts would fall into this category (Topouzis 2000).

3.2 Mainstream HIV/AIDS

The painfully slow recognition that HIV/AIDS is a major global developmental crisis, and not just an isolated health problem, has finally dawned. Yet strategies, where they exist, tend not to go beyond prevention, and they remain in the domain of the health sector. Very little is happening in mitigation, and very little in reviewing food and nutrition security policies and programmes through an HIV lens (see section 3.4). Many government/public civil servants who work in agriculture or rural development do not understand the link between HIV and food security. Programming is very *ad hoc*, with different groups intervening in different ways.

Effective advocacy is vital to mainstreaming HIV/AIDS. Advocacy strategies that consider the role of values, attitudes, and interests as well as information *per se*,

undertaken by skilled policy entrepreneurs, ideally backed up by nationally prominent champions, need to be developed.

3.3 Ensure strategic balance

Conventionally the distinction is made between prevention aimed at reducing HIV infection through behavioral change and mitigation aimed at reducing the severity of HIV/AIDS impacts on households, communities, and other institutions. Care interventions focus on those infected and affected, particularly the children of HIV-infected parents, orphans, widows, etc.

The focus on programming for HIV/AIDS has been largely on prevention, with care secondary and, until recently, mitigation relatively neglected. This needs to change. It is increasingly obvious that not only are all these strategies vital in the long run, but should be integrated as far as possible.

This is because the distinctions are actually quite blurred in reality, and the strategies are complementary in their implementation and effects. Successful mitigation efforts, for example, can be preventive (Topouzis 2000). To the extent that poverty increases HIV/AIDS susceptibility and vulnerability (see section 1.2), mitigation that succeeds in alleviating or preventing poverty can reduce HIV exposure and future impacts. Interventions thus need to be designed and assessed not only in terms of their ability to mitigate the current impacts of HIV/AIDS, but also in terms of their ability to reduce susceptibility to future infection and vulnerability to various types of impact.

Care too is inextricably linked with mitigation; care clearly mitigates individual-level impacts, and other forms of mitigation may improve the capacity to care within households and communities.

Irrespective of the discovery of an AIDS vaccine, prevention needs to focus on shutting down the engine of growth of the infection, namely by minimizing the risky behaviors of individuals who are most likely to catch and spread the disease. But changing the behavior of individuals is about more than access to information and services, and cajoling and exhorting. It is also about the incentives—cultural, social, and economic—that lead individuals to a highly risky course of action as opposed to a less risky one. The consensus view now recognizes the importance of poverty as a factor in the implicit cost-benefit calculations made by those contemplating such risky behaviors (e.g. commercial sex). If we can identify certain types of livelihoods as being more likely to result in HIV infection, and we can begin to understand the constraints to various livelihood options, then policy can begin to provide incentives for individuals to switch to less risky and more sustainable livelihood choices.

Mitigation is about creating environments that support those who are affected by but not infected with HIV/AIDS, namely families, households, and communities. As with HIV prevention, some livelihood strategies are better than others in supporting HIV/AIDS mitigation. As we begin to understand better the social and economic impacts

of HIV/AIDS, the features of livelihoods that allow more effective mitigation can be identified. Ideally, mitigation for food and nutrition security would be integrated into a full package of interventions that include awareness-raising, bio-medical, psycho-social counseling, testing, care and mitigation. While this type of package addresses many issues beyond the food security arena, it nevertheless has significant potential for improving food and nutrition security in an HIV/AIDS-impacted household.

3.4 Use an “HIV lens”

A hard look should be taken at the role existing interventions and policies play, or could play, in HIV/AIDS mitigation before completely new and capacity-straining interventions are developed. What is the extent of HIV/AIDS-specificity required for an intervention to be effective in mitigating the impacts of HIV/AIDS? When, specifically, when do governments, NGOs, communities, and development agencies need to (i) improve the performance of existing efforts; (ii) view HIV-prevention and mitigation interventions through a poverty lens and modify appropriately; (iii) view agriculture, anti-poverty, and nutrition interventions through an HIV lens and modify appropriately; or (iv) design completely new interventions to address HIV/AIDS? Development practitioners should not be blind to the threat of HIV/AIDS, but neither should they be blinded by it.

One problem here is that food security programming *per se* is very weak in many countries. Programming for food and nutrition security rather than just agricultural production is difficult due to the multi-sectoral nature of the issues. Linking it with HIV/AIDS complicates the matter even more. This is coupled with the fact that many countries do not include extensive food security policies and programmes in their overall poverty reduction strategy, which marginalizes the issue further.

3.5 Context

Context in general, and the context of poverty in particular is not taken into account sufficiently in programming. For those who are poor, HIV/AIDS is just one more event/shock that affects their ability to get ahead and improve their lives. Programming for mitigation needs to look very closely at what all of the other constraints are that impact food security for HIV/AIDS-affected households. It is often these other constraints that will affect the success of the intervention, and how HIV/AIDS impacts different households and different members of a household. Because of the complexity of these interactions, it can be difficult to identify mitigation activities that are sustainable, address food and nutrition insecurity and contribute to the prevention of HIV infection.

3.6 Targeting

There is a need to recognize the different stages of the disease in different parts of a country. In some areas, the biggest issue is prevention; in others, where there has already been a clear impact on households' ability to ensure their food security, mitigation becomes increasingly important.

Different interventions will also be required for different groups. The impact of HIV/AIDS on food security of a pastoralist group is likely to be different from that on an agriculturalist community. Particularly susceptible and vulnerable are communities affected by complex emergencies (see section 3.10), which are usually epicentres for the transmission of the disease. This is because the lethal mix of population displacement, rape, occupying troupes, women in desperate circumstances, unsafe blood supplies, drug abuse, unsafe sexual practices and insufficient control activities make HIV transmission highly likely. This will affect neighboring communities.

There is no need to identify HIV-infected individuals or households. To avoid the stigma attached to HIV, community-based targeting is usually the most appropriate option (see section 4.1). If the programme is designed to identify the poorest for safety net schemes or food aid development projects (for example) using known community structures appears to be the best way to target. Programmes that target very poor food-insecure households that have been impacted not by HIV but by other factors should not be considered an inclusion error. Identifying HIV families as distinct from other families brings stigma, and it also might not be cost-effective for many programmes since in most rural areas there is little or no testing.

3.7 Scale

Most HIV/AIDS programmes are very small scale in nature, and have been referred to as “expensive boutiques,” available only to a small percentage of the affected population (Binswanger 2000). For example, in Kagera, Tanzania, a highly studied region, only two of five districts are covered by HIV/AIDS services (in this case, preventive), and within these districts, a mere 5 percent of the population has access to services. Multisectoral top-down coordination of integrated rural development programmes failed in the 1970s and 1980s (World Bank 1988), and such mistakes should not be repeated. Nonetheless there remains a need for some top-down support of bottom-up processes in the areas of setting of policies and programme parameters, cofinancing programmes, facilitation and training, monitoring, and evaluation (Binswanger 2000). The challenge is to find ways of scaling up locally relevant, community-driven approaches.

Scale relates also to sustainability. As the use of an “HIV lens” in policy and programming becomes progressively systematized, sustainability is likely to increase. It is also important to re-emphasize that the short- and long-term nature both of impacts and of mitigation responses needs to be thought through clearly.

3.8 Partners and collaboration

Effective interventions are rooted in a community response and depend heavily on the participation of local health authorities, community representatives and people living with HIV/AIDS. The greater involvement of people living with HIV/AIDS in all aspects of related programming can be a powerful and influential factor in effective prevention,

mitigation and care interventions. The best partner organizations working on HIV/AIDS are community based. However, these institutions tend not to national in scope, can be difficult to locate, and are often unable to scale up interventions (see "scale" above).

It is important also to look outside the usual nutrition and food security networks in order to identify partners working on HIV/AIDS with whom mutually beneficial partnerships may be forged. Many of the organizations aiding and supporting people living with HIV/AIDS and their families have religious affiliations. Food security programmes need to work to maximize the inputs of such organizations, while recognizing the possible constraints and gaps left by their involvement. For example, in many areas, religious groups are active in home-based care, but do not promote the use of condoms for HIV prevention. In such situations, other partners will need to be drawn in. As HIV/AIDS partner organizations may be very small and with weak capacity, especially for innovation, capacity development will be an essential element of support.

3.9 Monitoring

It is difficult for policy and programmes to respond to HIV/AIDS if the epidemic cannot be monitored effectively. A monitoring system that is relatively simple but able to track the changing HIV/AIDS situation and its impacts on food and nutrition security, with the required accuracy and reliability to guide timely ameliorative action remains elusive. This is likely to be due both to a weak demand for such information and a weak ability to supply it. How to generate such a demand is a difficult question to answer. The stigma, denial and silence attached to HIV/AIDS makes the task more difficult than, for example, developing early warning drought indicators. Moreover, the capacity to generate such information is undermined by HIV/AIDS.

A number of such generic indicators have been suggested in the literature. Examples are suggested from the types of household and community impacts and responses mentioned in the previous section. Data from health centres on STDs, TB, and adolescent pregnancies are all relevant if they can be accessed. Again, it is not necessary to re-invent food and nutrition security indicators, but to apply the lens to existing ones. A balance has to be found between indicators that can be compared across communities and administrative units, and a community-driven process that can generate more context-specific indicators. Community knowledge will be invaluable not only in identifying indicators, but also in clarifying their use and delineating what is feasible in terms of who will collect relevant data.

3.10 Programming in emergencies

Programming in emergencies should focus on controlling HIV/AIDS in the affected population and preventing further spread of the disease. This can be done through the provision of free condoms, provision of information, prevention of HIV transmission through blood transfusions and adherence to universal precautions for all health staff. Efforts should also be made to protect women from gender-based violence.

In addition, the UN uniformed services are at high risk of both transmitting and contracting the disease and represent a good target group for education and prevention.

4 Options for Action

In this section we review some of the specific options for action to mitigate HIV/AIDS impacts on food and nutrition security—starting with nutrition-relevant policy and programming⁵ before considering the role of food aid and finally the options for mitigation via the agriculture sector. It is important to keep in mind the generic principles described above when considering such options.

4.1 Nutrition policies and programmes

There are several different approaches to designing and implementing appropriate nutrition-relevant actions aimed at preventing and/or mitigating HIV/AIDS impacts. A first distinction needs to be made with regard to the objective. For individual persons living with HIV/AIDS (PLWHA), nutritional care and support is critically important in preventing or forestalling nutritional depletion. Relevant specific objectives might include to improve quantity and quality of diet, to build or replenish body stores of micronutrients, to prevent or stabilize weight loss, to preserve (and gain) muscle mass, to prevent diarrhea and other digestive discomforts associated with fat malabsorption, to speed recuperation from HIV-related infections, and to prepare for and manage AIDS-related symptoms that affect food consumption and dietary intake.

Nutritional support has the potential of significantly prolonging the life of individuals for their own benefit and the benefit of those who are dependent on them for care (e.g., young children), thus, in a sense, postponing mitigation and reducing vulnerability to impacts (Page 2000). Such interventions are likely to have the greatest overall impact early in the course of disease by prolonging the period of relative health with asymptomatic infection—the period before metabolic abnormalities are driving the nutritional course of infection, i.e., before AIDS (Piwoz and Preble 2000). Unfortunately, relatively few people know they are infected at this time.

Nutrition interventions may also be targeted to communities with the objective of preventing and/or mitigating impacts through reducing the interactions of HIV/AIDS with malnutrition, either upstream or downstream of HIV infection.

Any nutrition intervention should take into account the three main preconditions of good nutrition (food security, health and environment services, and care). For PLWHA, this means that appropriate treatment of opportunistic infections, stress management, physical exercise, and emotional, psychological, and spiritual counseling and support, for example, are all relevant (Abdale and Kraak 1995), along with

⁵ In the section on nutrition policies and programming it is understood that much of the discussion applies to nutrition and care programmes which use food aid.

conventional approaches such as home-delivered, ready-to-eat foods for homebound AIDS patients who are unable to prepare their own meals.

Beyond a clinical setting, there is a major issue as to how to do this in a way that does not stigmatize the beneficiary. Community-level targeting to communities that are found to be significantly affected by HIV/AIDS (using whatever proxy indicators are relevant) is likely to be far more feasible and effective than targeting to individuals or households. A second-stage targeting might be employed with regard to stages in the life cycle that are particularly susceptible and vulnerable (e.g., adolescent girls, pregnant women, and young children).

Looking through the HIV lens, breastfeeding promotion and complementary feeding programmes will need to emphasize further the dissemination of clear information to policymakers, health providers, and communities about MTCT facts, including the risks and benefits of breastfeeding (see Box 2).

Box 2: How does mother-to-child-transmission change policy?

The finding that HIV is transmitted through breastmilk has complicated infant feeding recommendations (Nicoll et al. 1995). Recognizing breastfeeding as a significant and preventable mode of HIV transmission, the Joint United Nations Programme on HIV/AIDS (UNAIDS), WHO, and UNICEF issued new guidelines on HIV and infant feeding (WHO 1998). These guidelines call for urgent action to educate, counsel, and support HIV-positive women in making decisions about how to feed their infants safely.

Evidence of the protective effect of exclusive breastfeeding (Coutsoudis et al. 1999 and 2001) only emerged after these guidelines were published. Further confirmation of this finding and the benefits of “safer” breastfeeding practices on the risk of mother-to-child transmission of HIV is a necessary first step in the development of a policy recommendation that would permit infants to benefit from the myriad benefits of exclusive breastfeeding while avoiding the risk of HIV transmission through partial breastfeeding. Much of the debate and controversy in this area has revealed a limited understanding of the multiple extra benefits of exclusive breastfeeding and the serious trade-offs and dangers of moving away from such a policy recommendation.

Yet despite these findings slowly gaining acceptance, there remains a strong resistance on the grounds that exclusive breastfeeding is both rare (Haggerty and Rutstein 1999) and difficult to promote. Much clearly remains to be done. Breastfeeding promotional efforts need to be rapidly improved, including expanding the Baby Friendly Hospital Initiative (BFHI) to rural hospitals, and strengthening its links with communities (the 10th step in the Innocenti Declaration), as well as advocating for the breastfeeding rights of working women (using, for example, the new ILO Maternity Protection Convention 183 and Recommendation 19, which advocates longer paid maternity leaves and other needed workplace support.)

They will also need to anticipate the fact that households affected by HIV/AIDS will have even greater time and economic constraints on the provision, preparation, and feeding of appropriate complementary foods. Programmes to address women’s nutrition may not require substantial content changes, but need much greater support all around, especially for breastfeeding women. Again, these challenges will be further accentuated by the progressive weakening of health care and other delivery systems.

Affected communities may be targeted for the following types of interventions: nutrition counseling in health facilities, in community settings, or at home to change dietary habits, to increase consumption of key foods and nutrients, or to manage anorexia and other conditions that affect eating patterns; water, hygiene, and food safety interventions to prevent diarrhea; and supplementary food baskets for home preparation.

As also with all nutrition programming, it is important that HIV/AIDS-related programming is not just community-based, but also community driven. Process is thus a major consideration. At the community level the key is to create space and develop capacity for an iterative process of assessment, analysis and action.

It is also important to build partnerships and foster convergence of relevant programmes. As a multi-faceted subject requiring action from several sectors, nutrition is, and always has been, vulnerable to bureaucratic inertia deriving from compartmentalized organizational structures that offer few incentives for integration or convergence. Magic bullets have generally been the preferred way to go—witness the prominence attached to vitamin A capsule distribution and salt iodization during the 1990s. There is nothing intrinsically wrong with magic bullets, unless they end up crowding out other important and necessary longer-term holistic approaches to nutrition. This has certainly happened, as borne out by the relative stagnation of child anthropometric outcomes when compared with micronutrient indicators (ACC/SCN 2000). While micronutrient supplementation (particularly vitamin A) will have a role in nutritional support to AIDS-affected communities, this mistake should especially not be repeated in the case of HIV/AIDS communities—not least given the significantly raised energy and protein requirements of PLWHA, which cannot be met by pills.

4.2 Programming food aid

The role of food aid in HIV/AIDS mitigation and care has just begun to be explored by field-based organizations. Food is often cited by poor HIV-impacted families as their greatest need. The biggest challenge for food-assisted interventions is to provide food to meet consumption and/or nutritional needs but also to programme interventions so that family members and communities are left with a means of improving their food and nutrition security after the food assistance stops. Issues of sustainability are thus difficult, and are yet to be fully resolved.

Recent work has shown that there is a role for food aid in both care and mitigation packages (Kraak et al. 2000, WFP, 2001). However, certain programming principles should be followed:

- If HIV/AIDS-impacted families and communities are to be targeted for food-assisted interventions, there must be a clear need for food among the recipients. Tested and reliable methods for determining the relative level of a household's food and nutrition security exist and are used in most targeted food aid interventions (WFP, VAM).

- As with any non-emergency food aid intervention, food should be provided only as part of a larger “package” of assistance. The appropriate “package” for HIV/AIDS beneficiaries will depend on country- and community-specific conditions. Information, education and awareness (i.e. prevention) are an essential component of both care and mitigation activities.
- Combining food with either training or income-generating activities (IGA) appears to be a way both to assist households in dealing with reduced access to food and to build self-sufficiency in those same households struggling with either a chronically ill adult or the death of a family member. Care must be taken with this approach to make sure that the skills training and IGA are viable and have markets.
- Linking food-assisted projects in a vertical manner to other types of assistance such as microcredit is a means of strengthening the impact of the initial food-for-training or food-for-work project.
- Close consultation with affected communities on how to target and deliver food assistance needs to be an integral part of the project. Considerations concerning the most appropriate types of food need to be discussed with participants, particularly when family members include chronically ill individuals and infants. Appropriateness includes not only issues of taste and nutrition but also preparation, including cooking. For example, decreased family labour can have an impact on the supply of household energy, such as firewood.
- Communities often have their own means of identifying the poorest households and selecting those who need food. In order to avoid the stigma, households that are poor and food insecure but that have not been visibly impacted by HIV/AIDS should still be included in the beneficiary group, if selected by the community.

Food-assisted projects present certain challenges. They can, for many reasons, be more complicated for implementing organizations than other types of development projects. Most of the community-based HIV/AIDS organizations, which would assist in the implementation of food aid projects, are very small and operate on minimal funds. They frequently lack the expertise and full capacity to undertake expanded activities and the experience in transporting, storing, handling and distributing food. Organizations dealing in food-assisted projects need to recognize this capacity gap and plan for capacity-building and training in these areas. Furthermore, many of these organizations have never used food in their programming. Education concerning the role food should play in either a care or mitigation intervention is essential.

Where to concentrate HIV/AIDS food-assisted programmes and projects can also present challenges. Food aid is generally targeted to the geographic areas of a country that are the most food insecure, and then, within those areas, to those communities/families that cannot meet their food needs. In many countries these are not the areas that have the highest prevalence of HIV/AIDS (WFP, VAM Uganda, Kenya,

India). Food-insecure areas are often more remote, have low production potential and weak market structures. Areas with high infection rates are often located in or around urban or semi-urban areas, or areas where markets and transportation networks function relatively well and where commercial activities, including agricultural trade, take place. Towns near or on trucking routes and zones with active commercial markets often have high prevalence rates.

In order to target food aid effectively in areas considered food secure, food-assisted intervention need to be able to locate and identify those families and communities that have been impacted by AIDS and that are having difficulty meeting household food needs. If local institutions, NGOs, or community-based organizations working with HIV/AIDS-affected populations are not present, then it will be extremely difficult to identify families and populations for whom food aid will make a difference.

Furthermore, food-assisted programmes dealing with HIV/AIDS need to broaden their reach in terms of prevention activities. Many organizations that deal with food aid also transport it within countries. This is done either with their own trucks or through contracting local transportation companies. Because long-haul drivers are a known vector for the spread of HIV, it is important to include this group in education and awareness campaigns and training, including condom distribution. Organizations that programme food aid should consider targeting transportation personnel, particularly agencies that deal in emergencies where the quantities of food and hence the number of truckers needed are greatly increased.

Several options for programming food aid are listed in Box 3 below. By slightly changing existing food aid projects, the specific needs of food-insecure HIV/AIDS-impacted families can be taken into account. For example, school feeding in particular has potential as a means of encouraging the school attendance of orphans, and to prevent school drop-out. By providing take-home rations for families fostering orphans as part of a regular school feeding programme, families are encouraged to continue caring for children whose parents have died and orphans are encouraged to attend school. Experience shows that while foster families will continue to send their own children to school when times get difficult, foster children are often pulled out of school.

Although food can and should be distributed to and through institutions, caution must be exercised to avoid undermining household and community care strategies. For example, by supporting orphanages with food and other inputs, communities might be encouraged to send orphans to the orphanage rather than finding foster families where the children can live in a family environment.

Box 3: Examples of prevention, mitigation and care-related intervention options that use food aid

Prevention

- Using food distribution sites to enable partners to raise awareness on HIV and AIDS, provide prevention information, and promote and distribute condoms
- Making certain that long-haul truck drivers contracted by food aid agencies are provided with risk reduction and prevention information and an ample supply of condoms
- Training of community health workers in methods of optimal breastfeeding practices for food aid beneficiaries
- Training of youth peer educators to provide information on STD/HIV/AIDS risk reduction and prevention as well as voluntary testing and counseling

Mitigation

- Food for vocational training for street children and orphans
- School feeding with special take-home rations for families caring for orphans
- Food for training programmes that promote income-generating activities (mushroom growing, tie-dyeing, etc.) and are linked to small-scale credit facilities for women and older orphans
- Food for training and food for work to support farmers through animal traction schemes and the provision of seeds and agricultural tools
- Food for work to support increased agricultural production through home gardening to improve diet diversification and increase intake of micronutrients
- Food for work and food for training to support the introduction of small-scale, low-labour livestock activities to (a) increase the intake of high-energy/protein food, and (b) provide capital/savings that will increase over time

Care

- Providing food for women living with HIV/AIDS and their children in order to prolong the life of the mother while ensuring the nutrition of her children
- Supporting the training of HIV/AIDS home-based care workers in nutrition counseling to emphasize optimal nutrition and advise on optimal foods for their patients
- Providing nutritional support to tuberculosis patients to protect their food security and as an incentive to complete their full treatment protocol (TB is one of the most common opportunistic infections found in people living with HIV/AIDS)

Source: WFP 2001

4.3 Agricultural policies and programmes

The options for policy and programme response in agriculture can be grouped around the main clusters of impacts: labour losses, knowledge losses, and weaknesses in institutions. These tend to be most noticeable beyond the initial phases of the epidemic. All are compounded in a downward spiral whenever asset depletion is a short-term response.

Discussion of HIV/AIDS issues can, and should as far as possible, be included in agricultural services provision. Examples include Integrated Pest Management (IPM) programmes in Southern Africa that have incorporated information on HIV prevention, care and mitigation into IPM training. Also, in Southeast Asia, farmer field schools and IPM student field schools have addressed HIV prevention issues (White and Robinson 2000). There may be a benefit to targeting scarce extension resources to higher-risk groups such as seasonal agriculture workers, estate workers, and fishermen. As with any sector, monitoring systems need to be established to assess the progression of the epidemic and the adequacy of response. Research on national agricultural systems should be encouraged into the substitutability of labour and capital in local farming systems in anticipation of severe labour shortages.

But perhaps the most profound challenge to the agriculture sector in countries threatened by HIV/AIDS is the need to develop agricultural and natural resource management systems that are more labour-extensive and use less purchased inputs but that support sustainable livelihoods. In the absence of new technology and techniques, farmers are switching to feasible low-input, low-output farming that is preferable to infeasible labour-intensive, higher-input farming (Page 1999). Yet, in so doing, they run the risk of adopting an ultimately destructive “coping strategy.” If the loss in agricultural productivity from pre-epidemic levels is sufficiently large, farm and nonfarm incomes will slowly cycle downwards.

The move to low-input, low-output farming buys some time but is unlikely to be a sustainable solution. The challenge for the agricultural community and specifically for the agricultural research community is to develop farming practices that adapt to the reality of HIV/AIDS-affected environments and yet maintain productivity levels. For this to happen, surviving farmers should be ever more closely involved in planning and implementation of supporting research (Topouzis and de Guerny 1999). One simple example of a technological adaptation to an HIV/AIDS environment is the development of lighter ploughs for use by women and youth (White and Robinson 2000).

Proposed methods for combating information and knowledge losses include farmer field schools, where experienced farmers share their knowledge with less experienced farmers (youth and widows). For example, an initiative in Zimbabwe involves participatory training for AIDS widows in the production of cotton, a crop normally grown by men (White and Robinson 2000). Extension services—themselves severely depleted by the epidemic—must focus more on youth to “fill the void.” Information losses are also crucial in terms of the role traders play in bridging the gap between farm and market. Recent research has emphasized the important role played by trader-farmer networks of information and social relations that embody reciprocity based on trust (Fafchamps and Minten 1999). This is one of the forms of social capital that HIV/AIDS is thought to undermine. Mobile traders are thought likely to be relatively susceptible to HIV/AIDS, and given the already thin nature of agricultural markets in many parts of sub-Saharan Africa, the consequences are likely to be serious. Efforts to support these networks need to be developed.

Agriculture does not take place in a vacuum. Successful efforts to strengthen the institutions that support farming in the face of the HIV/AIDS onslaught are difficult to find. An important first step is to improve the access to HIV prevention information and technology for members of that institution. Second, it is necessary to clarify the ability of the institution to strengthen itself. We do not know enough about which types of capacity constraints are most binding and which have been most damaged by HIV/AIDS. This is another important step to take before increasing resources for staff development and recruitment.

Recent experiences from some of the most badly affected countries have demonstrated the ability of an important rural institution, microfinance, to innovate and develop products that better meet the needs of the emerging clientele—especially as in Uganda where national leadership has openly confronted HIV/AIDS (Parker et al. 2000). The roles of microfinance institutions and the NGO community that helps animate them will be crucial in the prevention and mitigation of HIV/AIDS in the new HIV/AIDS battlegrounds of South and Southeast Asia, where so much microfinance innovation has taken place in general. If such types of innovation are to occur at the intersection between community and institutions that are accountable to them, donors will need to be more creative in the programming of resources.

5 Research

The research base upon which HIV/AIDS impacts are assessed and upon which interventions for mitigation are evaluated is very narrow. A small number of good studies do exist in refereed journals, and more exist in the unpublished literature. Yet, given the scale of the problem, the research base is remarkably small.

There is no consensus as to whether information gaps are more constraining than funding gaps, but clearly better analysis and information can lead to a better use of existing resources and provide a firmer basis for arguing for more⁶. There is a sense that many experiences in mitigation in the food, agriculture and nutrition field are not getting out to as wide an audience as they need to. Innovative practitioners have little incentive to document their experiences given the complex environment within which they work, and in any case, the demand for such information may be muted due to the silence surrounding HIV/AIDS. Mechanisms for information sharing, for giving those at the front line a “voice,” have to be found.

Second, tools for the assessment of capacity need to be developed and employed. Capacity as a constraint on effective interventions is often overlooked, with disastrous consequences, and the fact that HIV/AIDS directly undermines this capacity makes it even more important to assess what remains. The evaluation of HIV/AIDS mitigation through food, agriculture, and nutrition interventions is an area in which immediate work must begin. The work must be action oriented for advocacy and ethical reasons, but it

⁶ For a detailed description of the type of information gaps concerning appropriate mitigation responses to HIV/AIDS impacts, the reader is referred to a recent paper by Haddad and Gillespie (2001).

must conform to high scientific standards—a difficult but not impossible challenge, as action research outside of HIV/AIDS and indeed HIV/AIDS prevention work has shown.

Third, more basic research needs to be undertaken on the dynamics of shocks, including HIV/AIDS. Which communities, families and individuals are best able to minimize the damage due to HIV/AIDS, and why? Pragmatism needs to prevail if the research is to have payoffs within 2–3 years, and all efforts must be made to build on earlier data collection.

And finally, the policymaking process needs to be better understood. Why does HIV/AIDS register more quickly as a threat to development in some countries but not in others? How do policymakers learn and what is the role of research, communication and advocacy?

6 Conclusions

The impact of HIV/AIDS on people's lives and on development is staggering. Millions have died and livelihoods have been devastated, particularly in sub-Saharan Africa. Agriculture and natural resources are important components of such livelihoods. And the nutritional status of those infected and affected plays a large part in determining those individuals' current welfare and their ability to further develop their livelihoods towards activities that help to mitigate the impacts of AIDS and prevent the spread of HIV.

This paper first reviews the potential pathways through which HIV/AIDS affects nutrition, food security, and the livelihoods of households, particularly those dependent on agriculture. With regard to nutrition, HIV/AIDS significantly impacts individuals and households – through accelerating the vicious circle of inadequate dietary intake and disease, and through diminishing the capacity to ensure the essential food, health and care preconditions of good nutrition. The impacts on agriculture relate to labour and knowledge losses and institutional weakening.

The question of how the public sector can and should respond to these challenges is then addressed. The focus is primarily—though not exclusively—on mitigation. Indeed it is important to seize opportunities for integrating prevention, care and mitigation—not least because effective mitigation can also serve as a very cost-effective form of prevention. Communities must be actively involved not only because they have the most information about how their own livelihood constraints have changed due to HIV/AIDS but also as a way of overcoming stigma. The potential impact of the public response needs to be evaluated, both in terms of mitigation today as well as with regard to the reduction of susceptibility and vulnerability tomorrow. New interventions to address HIV/AIDS mitigation should be developed only if existing agriculture, food and nutrition interventions areas cannot be effective by adapting them through the use of an HIV/AIDS “lens.” Public policy should not be blind to HIV/AIDS but neither should it be blinded by it. Other key generic policy and programming principles identified in the

paper include the principle of “doing no harm”, and the need to seize opportunities for mainstreaming HIV/AIDS in food and nutrition programming. Issues of scale, context, targeting, monitoring and collaboration are also key.

Nutritional support has the potential to significantly postpone HIV/AIDS-related illness and prolong life. Regarding mother-to-child transmission of HIV, further confirmation of the protective effect of exclusive (as opposed to partial) breastfeeding is needed to strengthen existing policy. Appropriate community-based interventions aimed at improving the food, health or care preconditions of nutritional well-being need to be designed through a participatory process of assessment, analysis and action.

Food aid has significant potential for improving the situation of HIV/AIDS-impacted households and communities. Important considerations here include the need for appropriate community-driven targeting mechanisms, and the need for food assistance to form part of a broader package, as far as possible integrated with activities such as training, income-generation or microcredit.

Considering the response of the agriculture sector, as labour becomes depleted, new cultivation technologies and varieties need to be developed that do not rely so much on labour, yet that allow crops to remain drought resistant and nutritious. And as knowledge becomes depleted, innovations such as farmer field schools have to emerge to facilitate the transfer of community-specific and organization-specific knowledge within generations and across them.

The paper concludes with a description of research priorities. These comprise the development of mechanisms for information sharing, and for the assessment of capacity; the evaluation of attempts at HIV/AIDS mitigation through food, agriculture, and nutrition interventions; and more basic research on the dynamics of shocks. Finally, a re-examination of the policymaking process is needed to understand the ways in which existing policies and programmes may be modified to reduce their effects on either the spread of HIV or the downstream impacts of HIV/AIDS on households and communities.

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