New variant famine: AIDS and food crisis in southern Africa

Alex de Waal, Alan Whiteside

Southern Africa is undergoing a food crisis of surprising scale and novelty. The familiar culprits of drought and mismanagement of national strategies are implicated. However, this crisis is distinct from conventional drought-induced food shortages with respect to those vulnerable to starvation, and the course of impoverishment and recovery. We propose that these new aspects to the food crisis can be attributed largely to the HIV/AIDS epidemic in the region. We present evidence that we are facing a new variant famine. We have used frameworks drawn from famine theory to examine the implications. HIV/AIDS has created a new category of highly vulnerable households—namely, those with ill adults or those whose adults have died. The general burden of care in both AIDS-affected and non-AIDS-affected households has reduced the viability of farming livelihoods. The sensitivity of rural communities to external shocks such as drought has increased, and their resilience has declined. The prospects for a sharp decline into severe famine are increased, and possibilities for recovery reduced.

Despite repeated warnings that AIDS could be a disaster for development, little systematic investigation has been done into the contribution of AIDS to development, and virtually no studies have been undertaken on HIV/AIDS, food security, famine, and nutrition.1

Demographic findings show that the secondary effect of a famine or epidemic could be as least as great as the primary effects. For example, a chain reaction of further famines and epidemics or massive out-migration might arise.2 The food crisis developing in southern Africa could be the first major manifestation of this chain reaction.

Droughts and famines have afflicted large parts of Africa throughout history. In past decades, these food crises have had a characteristic demographic and socioeconomic profile. They have raised crude death rates by two to five fold, with mortality concentrated in very young and elderly people,3–5 and mortality in males has been higher than in females.6 However, farmers and pastoralists have developed sophisticated coping strategies7 that are characterised by considerable resilience—defined as the ability to return to a former livelihood on the basis of diversity of income and food sources—and accumulated skills, including knowledge of wild foods and kinship networks.8,9 Only when these coping strategies collapse are African societies faced with so-called entitlement failure (inability to command sufficient food to prevent starvation) and outright starvation.10 Most typically, such extreme crises have arisen in wartime, when armed forces have actively prevented civilian populations from pursuing coping strategies.11

The present southern African food crisis confounds many expectations. A cycle of drought is taking place, in which regionwide rainfall failures can be expected about once every decade. The last such drought happened in 1991–92. Despite the fact that the region was economically and politically less well-prepared to withstand a food crisis than nowadays, famine was averted. The main reason for this was the effective coping mechanisms of the affected people.12 The region is in better shape 10 years on: apartheid has been ended in South Africa, and there is peace in Mozambique and Angola. The exceptions are political and economic crisis in Zimbabwe and mismanaged economic liberalisation in Malawi, in particular the attempt to make the national strategic grain reserve commercially viable by selling off stocks.13,14

The present food crisis is more widespread and intractable than its predecessors, and has three distinct features. First, vulnerability is very widely spread, including areas that are not severely affected by drought. The numbers defined as in need by the United Nations are considerably higher than were anticipated after the poor 2001–02 rains. Second, household impoverishment has arisen more rapidly than in earlier droughts. Third, present estimates are that—despite the return of good rains in early 2003—a high level of vulnerability will continue.

The factor that could account for these features is HIV/AIDS. Southern Africa is the location of the world’s worst AIDS epidemic, with most countries having a prevalence of HIV in adults in excess of 20%. Zambia, Zimbabwe, and Botswana have recorded very high levels for several years, and AIDS mortality rates are climbing steadily.

The new variant famine hypothesis

Our hypothesis is that the HIV/AIDS epidemic in southern Africa accounts for why many households are facing food shortage and explains the grim trajectory of limited recovery. Four factors are new: (1) household-level labour shortages are attributable to adult morbidity and mortality, as is the rise in numbers of dependants; (2) loss of assets and skills results from increased adult mortality; (3) the burden of care is large for sick adults and children orphaned by AIDS; and (4) vicious interactions exist between malnutrition and HIV.

Lancet 2003; 362: 1234–37

United Nations Economic Commission for Africa, Commission on HIV/AIDS and Governance in Africa, PO Box 3001. Addis Ababa, Ethiopia (A de Waal DPhil); and Health Economics and HIV/AIDS Research Division, University of Natal, Durban 4041, South Africa (A Whiteside DEcon)

Correspondence to: Dr Alan Whiteside (e-mail: whitesid@nu.ac.za)
For personal use. Only reproduce with permission from The Lancet publishing Group.
that things can return to normal. With the reduced adult life expectancy associated with HIV/AIDS and the perception of a downward spiral in standards of living, this motivation may be absent too. Indeed a successful livelihood coping strategy might only postpone the decline by a year or so rather than provide the foundation for a recovery.

The burden of care
One of the main factors impoverishing rural Africa is the burden of providing for orphans and sick adults: it is a major expenditure and diversion of labour. Most affected households struggle to cope. Some businesses have responded to the costs of AIDS by reducing sickness and disability benefits and shifting to use of self-employed subcontractors. The unstated assumption is that wider society—mainly women in rural areas—will carry the burden. Furthermore, urban children orphaned by AIDS are usually sent to rural relatives to be cared for. The burden is thus doubled. In the past, rural households could rely on urban relatives for assistance during times of hardship. Nowadays, the flows of assistance have been reversed. The implication is that the preferred and most resilient livelihood coping strategy—of reliance on kinship networks for assistance—is increasingly inoperable.

Malnutrition and HIV
In past famines, adults have reduced their consumption of food and simply gone hungry. People from rural areas time and again showed remarkable physical capacity for work despite very low consumption of food. Relief agencies assumed that famine-affected adults could still look after themselves, and concerned themselves with operable. The implication is that the preferred and most resilient livelihood coping strategy—of reliance on kinship networks for assistance—is increasingly inoperable.

In so-called new-variant famine, adults cannot be neglected: malnutrition has very different implications. Undernourished individuals are more susceptible to being infected with HIV than are those who are well nourished. Nutritional status is also an important determinant of risks in mother-to-child transmission of HIV.

Adults living with HIV endanger their health by going hungry. Many types of nutritional deficiencies suppress the immune system, and hence make infections more virulent. This is true of HIV, which replicates most rapidly in malnourished individuals, hastening progression from HIV to AIDS. HIV-positive status inhibits absorption of nutrients, and the body’s needs in fighting the infection are considerable. Hence, people living with HIV have higher nutritional needs than normal: protein requirements are usually estimated at 30–50% more, and energy needs about 15% more. Malnutrition thus threatens to accelerate progression from HIV to AIDS for millions of infected individuals.

Overall implications for famine-coping strategies
The figure shows the course of coping strategies undertaken by a household afflicted by food crisis. HIV/AIDS renders many high resilience strategies impossible (labouring, relying on networks) or dangerous (reducing food consumption), and reduces the effectiveness of them all. In a traditional drought, one might expect affected households to take 2 years or so to descend through the quadrants into destitution and activities such as commercial sex work. In so-called new variant famine, this descent can be much more rapid, and the possibilities for recovery are much reduced. Results of aid-agency surveys are finding rapid rises in the numbers of young women entering commercial sex work in affected areas. Widespread impoverishment and social disruption, including increased resort to transactional sex, threaten to increase HIV transmission.

Conclusion
The new-variant famine hypothesis is a plausible idea for analysis of the causes and trajectories of food insecurity in southern African societies. These are societies afflicted by a combination of shocks including a generalised AIDS epidemic, drought, and poverty. The hypothesis cannot be judged proven, but it provides a framework for policy-making, relief provision, monitoring, and research. The hypothesis is lent support by results of the growing number of household-level studies of the effect of AIDS.

The analysis does not neglect the role of factors such as drought and macro-economic disparities and mismanagement. Rather, it points to the way in which HIV/AIDS accentuates existing difficulties, compelling us to confront many simultaneous problems, all of which need resolution. The challenges are daunting. A scaled-up long-term international effort will be needed to deal with the humanitarian needs that will result in southern Africa.

We must face the prospect that this food emergency will become a structural feature of the southern African landscape for many years to come, unless innovative and generous interventions are made now.

Contributors
A de Waal and A Whiteside wrote the report.

Conflict of interest statement
A de Waal is programme director of the Commission on HIV/AIDS and Governance in Africa. AW is director of the Health Economics and HIV/AIDS Research Division at the University of Natal.

Acknowledgments
The research for and writing of this paper was in part supported by a knowledge programme of the British Department for International Development, UNICEF, and Justice Africa. The ideas and interpretation are the authors’ own.
References


