

Costs of Care and Support

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Introduction

This paper discusses the available literature relating to the cost of care and support for people who are infected and affected by HIV/AIDS. The focus is primarily on orphans for this allows us to acknowledge the need for HIV/AIDS management interventions to incorporate those affected, but not necessarily infected by HIV/AIDS, and to cover the issue of 'support'. We conclude the paper by outlining areas requiring more research, in view of our argument that South Africa still has some way towards the design and implementation of an effective care and support strategy.

This focus is a response to the evident need in South Africa for HIV/AIDS management interventions that are effective in the sense of providing care and support, and which use limited resources to maximum advantage. This need stems from the nature of the HIV epidemic and the socio-economic context in which it is occurring in South Africa. There is a long incubation period between initial infection with HIV and the onset of illness, followed by death from AIDS (Whiteside and Sunter, 2000). The consequence for management of the epidemic is that while South Africa may be approaching the peak of HIV prevalence, the levels of illness and death are still increasing (Dorrington and Johnson, 2001) and, therefore, the demand for care and support of HIV/AIDS infected and affected people is also increasing.

South African health and welfare agencies are already struggling to cope with that demand which inevitably includes provision of different forms of care and support and, therefore, there must be consideration of how to accommodate the different forms in an HIV/AIDS management strategy (Russel and Schneider, 2000). A first step in that direction is to understand the costs of different forms of care and support. However, as we discuss in this paper, the variety of demands on health and welfare agencies requires assessments that indicate how best to combine different forms of care and support in an effective manner. This means, as we elaborate shortly, that the impetus of care and support programmes in South Africa is towards development of an integrated management strategy.

We do not presume to describe an integrated strategy, primarily because the debate on this matter has hardly begun. Rather, we discuss why South Africa is moving in this direction in the field of managing the HIV/AIDS epidemic, and the concepts that lie behind the idea of an integrated HIV/AIDS management strategy. This is to say that any discussion on the cost of care and support must take into account the context in which it occurs. In South Africa, the idea of an integrated management strategy will not be new to many readers, because the notion of integration is already in public discourse (e.g. Integrated Development Plans submitted by District councils; The Integrated Environmental Management Policy of the Department of Environmental Affairs and Tourism). Our interest is in showing how interventions to improve care and support reflects a broader process.

The context

Currently there is an emphasis on community-based programmes which can be attributed to several interrelated factors. On the one hand, the state health and welfare

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system in South Africa, already inadequate, was not designed to deal with the excessive demands for healthcare and welfare support created by the HIV/AIDS epidemic. That limitation is exacerbated by the low priority of public health in government spending. The 2002 national government budget, for example, allocated R18,414 million to Defence, R7,185 million to Health and only R409 million to Social Development (welfare) (source: www.finance.gov.za). Furthermore, regionally and internationally, there has been a trend towards reduction of the social welfare role of the state (Garrett, 2000). In this context, local-level interventions are a response to policies that do not address particular local needs.¹ On the other hand, the global ethos of democratic governance coupled with South Africa's recent political transformation has encouraged devolution of authority and decentralisation of services to lower levels of government. To this extent, the democratic imperative has provided the political rationale for 'community-based' initiatives.

However, the conclusion that community-based programmes are *the* answer to the question of how to provide effective care and support, in response to the negative consequences of AIDS, is ill-conceived. This is not to deny that community-based care and support is, and can be more cost effective than state-regulated residential care (Desmond and Gow, 2001; Johnson et al, 2000). However, the issue in question is not whether to choose either state-based interventions or community-based solutions, but how to combine both sets of actions. The simple reason for advocating a combined initiative lies in the fact that community-based programmes face many of the same practical problems as public health and welfare agencies.

Community-based projects have to combine health and welfare interventions. Inevitably, they face the same problems as state health and welfare agencies; notably, the limited resources they can allocate to different aspects of care and support, and administrative difficulties with allocating those resources equitably (ABT,2001; Evian, 1995; Loening-Vysey and Wilson, 2001; Sheitinger and Sanei, 1998; SA Health Review, 2000; Johnson et al, 2001). Community-based projects rely greatly on volunteer labour, for example, which limits the scope of their care and support projects at any one time. Furthermore, this is a fragile base for intervention. Project managers have to contend with normal problems such as variation in reliability and skills levels of staff, and specific problems such as volunteers withdrawing their help at any time for personal reasons, and yet, unlike wage contracts, do not have the same level of legal and financial control measures. Compounding these problems are the financial uncertainties of project-based funding set against the costs of investing funds in screening and training of volunteers in order to improve effectiveness of care and support work and, in time, the need to establish dedicated administration systems to manage the diverse tasks involved in care and support of orphans.

The inevitable conclusion is that no welfare and health agency be it of the state or community-based can cope on its own. Different agencies must combine their respective skills and means; that is, in the terminology of development, there is a need for integration of different interventions; co-ordination of programmes and projects; formation of partnerships and linkages between agencies; and decentralisation of institutional support for intervention (Sheitinger and Sanei, 1998). The aspiration for an 'integrated approach' is compelling, but also demanding for it logically implies both the creation of new institutions of care and support and capacity building to ensure that it works.

The question that follows, and one that is very pertinent in South Africa, is whether the national government is prepared to take on a developmental role in the sense of promoting an integrated approach to care and support (Loening-Vysey and Wilson,

¹ The corollary is greater reliance on private health care, but in South Africa the vast majority of the population cannot afford the costs involved and therefore, are not covered by private medical schemes (Panday, 2001; SA Health Review, 2000:313).

2001, p.22; Schwartlander et al, 2001). For instance, in 1997, the Department of Welfare issued a White paper that proposed promoting self-sufficiency amongst HIV affected and infected individuals; in effect, arguing for shifting the responsibility for care of orphans and HIV infected children onto working age adults – a segment of the population that itself is most directly infected and affected by HIV/AIDS. The department’s approach has now been realised in the form of child support grants.²

The national government health and welfare policies provide little cause for hope that the national government will act in concert with civil, professional and scientific organisations. However, the tenor and content of the debate can be changed by improving understanding of what an integrated approach entails, and of the strength and weaknesses of current approaches. In other words, assessment of different emerging models is necessary in order to inform subsequent strategic planning of an effective integrated approach. Part of this assessment is economic in nature, although economic evaluation is not enough; other social and welfare goals must be considered.

An integrated approach to the care of orphaned and vulnerable children

A basic model, outlined by Loening-Vysey and Wilson (2001, p.8), is presented schematically below in Figure 1. It should be noted that it serves simply to draw out the principles of ‘integration’ and what it can entail.

Figure 1: A Model for Integrated orphan care and support

PRINCIPAL FOCUS	THE NEEDS AND RIGHTS OF CHILDREN
AGENCY	ROLE
Family	identify vulnerable children; day to day care
Community	support children and caretakers; lobby authorities
NGOs/Churches	co-ordinate community responses; provide material support
State	develop infrastructure; facilitate funding

Loening-Vysey and Wilson’s presentation of a ‘principal focus’ states at the start the values that inform the model. This is a premise of the integrated approach, in order to establish a basis for consideration of appropriate aims, activities and roles for different agencies (which are condensed in the figure above). Put differently, any attempt to develop an integrated approach begins with the idea that the quality of life could be improved in a cost efficient, politically appropriate, and morally sound way if different agencies or groups of people could co-ordinate their activities and collaborate. That idea inevitably inspires a vision statement that indicates a broad, but common, goal that different agencies are aiming for, even though they may be taking different routes. Identifying a common goal involves identification of the common values or principles that guide the work of the different agencies. Consequently, the process can be set out in a model or abbreviated as in the case of Loening-Vysey and Wilson’s model.

The outline of different roles for different agencies in the model reflects the need to promote co-ordination of activities and collaboration between them. Significantly, the model advocates decentralisation of care and support for orphaned and vulnerable children and, in the process, puts forward ‘family’ and ‘community’ as the locus for most activities. NGOs and Churches are distinguished from ‘community-based’

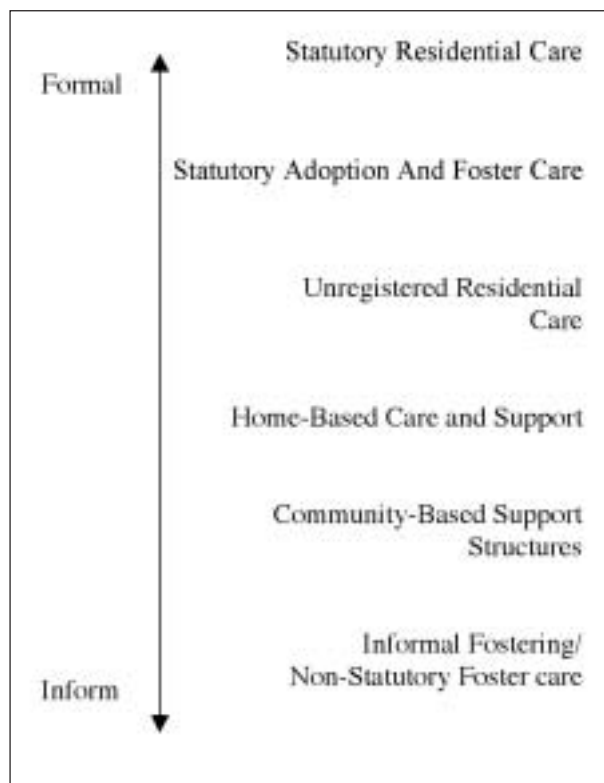
² See Desmond and Gow (2001), Loening-Vysey and Wilson (2001) and Smart (2000) for detailed discussion of these and other welfare grants, and the limitations on access to, and use of them in the care and support of children.

organisations, and are credited with the capacity for broader level action and support. The state is given primarily a developmental role in the sense of creating an enabling environment in which families, communities and NGOs can work constructively. These distinctions may seem somewhat arbitrary, but they follow the logic of the integrated approach by using the general context as the appropriate reference for setting up a framework for intervention.

The model is an ideal, of course, but what it subsumes is firmly entrenched in political discourse in South Africa. The elements have been introduced and firmly endorsed during the last decade. There was popular demand for participatory democracy during the era of Apartheid, followed by introduction of policies since 1994 that have attempted to meet this expectation. Notably, the ethos of sustainable development has provided a basis for elaboration of the logic of 'integration'. In the last decade, South Africa has developed a sophisticated integrated environmental management policy and associated procedures designed to encourage collaboration between civil society and the state.

Nonetheless, the pursuit of an integrated approach in various sectors of society in South Africa is still very much an experiment. Simply put, its efficacy has yet to be proven even though it resonates with the current political and moral climate. In the field of orphan and vulnerable children care and support in the context of HIV/AIDS, it is still an ideal. In practice, various models are being used. Figure 2 below outlines these models which range from formal to informal care.

Figure 2: Models of Care: from Formal to Informal



The existence today of informal and community-based forms of care for orphaned and vulnerable children reflects the necessary expansion of such services in this country. In the context of an HIV/AIDS epidemic, the state agencies are overwhelmed by the demand on its limited resources; hence, the existence of a variety of 'informal' responses in an attempt to cope with current circumstances. Generally, the forms of

community-based care range from placement of children in homes of members of the extended family, to community support of orphan headed households, to creation of a household or cluster of households of orphans supported voluntarily by members of the community, to the placement of a responsible adult member of the community in the home of orphans (Loening-Vysey and Wilson, 2001). Furthermore, they are usually supported in some way by an NGO.

None of these models match the ideal of 'integration'. However, they span the range of services, and locations, that are required of an integrated approach. Accordingly, there has been some research to assess them; individually, for their potential to be effective and, collectively, for how they can be combined. We review the work to date in the following section with a focus on the economic aspects of evaluation.

Economic evaluation of different models

One critical component of an evaluation is the cost of an action or actions, in order to enable comparison between actions and, hence, to provide critical information in planning. In the case of orphaned and vulnerable children care and support in South Africa, there has been a small amount of work in the field (Desmond, 2000; HEARD, 2001). This work has highlighted the difficulties of economic assessment and the need for additional information and analysis.

Three types of economic assessment are available in relation to HIV/AIDS management generally: cost analysis, cost effectiveness analysis and cost-benefit analysis (Desmond, 2000; HEARD, 2001; Newell et al, 1998; Schwartlander et al, 2001). Cost analyses simply focus on the total cost of programmes at a point in time, and may be used to make projections of costs in the future. They may or may not consider economic costs for which there is no exchange of money, and allow comparison of programmes on the basis of cost only, irrespective of outcomes. While this type of analysis may be useful for programme managers it is of little use for strategic planning because it has no effectiveness measure and therefore no means to compare different interventions.

Cost-effectiveness analyses acknowledge the desired outcome(s) of a programme or, for evaluation of comparable programmes, their common aims (e.g. improving health of the people in a particular location). In addition, they acknowledge the conditions that govern the programmes (e.g. budget). In other words, cost-effectiveness analyses start by framing the analysis within a particular context. Subsequently, the analysis assesses monetary and broader economic costs of a programme, but it also evaluates those costs in relation to what is intended and what is actually achieved.³

Cost-benefit analyses differs from cost effectiveness analysis by attributing a monetary value to all relevant economic costs and benefits (e.g. wage value of volunteer labour; financial value of improved health in an individual). A notable limitation is the analytical logic which reduces very different positive outcomes of an action to a single category of 'benefits'. For instance, the benefits of treating an HIV positive person with anti-retroviral drugs can be quantified as earnings gained and costs of treatment averted, but it would be very difficult to quantify and put a value on the benefit for the children of that person (e.g. having a parent alive for longer). Another practical limitation is the difficulty in comparing the benefits simply in terms of relative monetary cost even though in some applications (particularly the health of people) it is very difficult to assign monetary values to some benefits, for example the value an individual places on living longer, or on a reduction in the risk of an illness which they may face in the future. In other words, the attribution of monetary values implies an objective perspective, but, in practice, the calculations often depend on the subjective perspective of the person or persons commissioning or carrying

3 A useful reference (UNAIDS, 1998) is available on the UNAIDS website.

out the analysis. The subjective perspective is cloaked, in effect, by a veneer of 'objective' monetary categorisations. In theory, cost-benefit analysis provides the strongest analytical tool, but there these many practical difficulties with using it for assessing different forms of HIV/AIDS care and support.

In practice, cost-effectiveness analyses are often combined with cost-benefit analyses, and are becoming a standard for use in the field of HIV/AIDS management. These analyses estimate the cost and some of the benefits of programmes in relation to an effectiveness measure. For example the cost effectiveness analyses of programmes to prevent mother to child transmission of HIV measure the costs per infection or death averted and the cost saving of not having to provide care to an HIV positive child (see HEARD, 2001 for a review of these studies). While in theory there is no benefit to an expanded cost effectiveness analysis such work can be useful for advocacy purposes. There is no theoretical benefit because benefits included are generally the same for each intervention and therefore do not change the cost effectiveness ranking, furthermore the results still include an effectiveness measure and are not, therefore, comparable to intervention aimed at something else. Returning to the prevention of mother to child transmission example; the saved cost resulting from not having to provide treatment to as many HIV positive children is the same for each intervention and the most cost effective option will be unchanged in relation to the other options. At the same time the costs are still measured per infection or death averted so the analyses are not comparable to other interventions unless they to are design to prevent transmission of HIV from mothers to children. The only time that such an approach would have a theoretical useful application, would be if an intervention based on cost effectiveness analysis had reached full coverage and consideration was being given to the benefit of moving to a less cost effective but more effective intervention. For advocacy purposes highlighting some of the broader economic benefits is useful. Continuing the example, showing that programmes aimed at preventing mother to child transmission can be cost saving should be very persuasive to policy makers. Nonetheless, there are limitations to cost-effectiveness analyses which stem from the need, as in the case of cost-benefit analyses, to assign some standard for measurement of desired outcomes. For instance, comparing different models of orphan and vulnerable children care and support requires at the start a common standard for measuring 'care' and 'support' (Desmond and Gow, 200, pp.16-21).

Desmond and Gow's paper (2001) is the only research in South Africa to date that has attempted specifically to assess the cost-effectiveness of models of orphan and vulnerable children care and support.⁴ They examined six centres that were representative of six models currently in use in South Africa today. Table 1 summarises their findings. Their analysis acknowledges the rationale for this sort of study; namely, to indicate the cost of replicating the model of care and to identify the cost-effectiveness of particular operations rather than actual sites. Costing of a volunteer's time, for example, was based on the general cost of employing a person for a period of time to do that work, rather than on the opportunity cost of each individual volunteer's time. This was done to avoid over estimating the cost of a model of care because of who individuals were rather than focusing on the work that they did. The opportunity cost would be high, for instance, in the case of a business executive who takes time off work to do voluntary service at an orphanage. If, however, the purpose of the analysis is to estimate the cost of orphanages rather than the cost of that orphanage it would not be appropriate to use such a high opportunity cost⁵. In other

4 Other research that attempts to compare different programmes include Connelly (2001), Haile (2000), Johnson (2001), McKerrow (2001) and Uys (2000).

5 Another possible approach would be to estimate the cost of developing volunteer support: the cost of publicising the need, screening candidates and providing training. Such an approach is useful in contexts where, because of financial constraints, employing someone will never be an option and approaches to care are based on the assumption that they will make use of volunteers.

words, the study attempted to standardise the input costs of orphan care and support and therefore focus on the structural causes of differences in cost, which is reflected in Table 1 under the column 'Rand per childcare month'. It was not an attempt to cost the site where care was being provided but rather an estimation of the model of care provision.

Furthermore, bearing in mind the need to define the common goal of all centres, the study defined 'minimum care'. It did so by using the five categories of existence, identified by Loening-Vysey and Wilson (2001), that are generally deemed to be necessary for the welfare of a child: survival, security, socialisation, self-actualisation and palliative care. The individual categories were a means for identifying particular resources and services that had to be provided in order to fulfil a category of 'minimum care' (recognising that there was frequent overlap between categories). Survival, for example, included the elements of food, clothing and shelter while socialisation and self-actualisation included clothing, hygiene and education. A critical variable in costing these items was the presence and capability (i.e. the work time and labour skills required) of a caregiver to provide the different components of 'care'. This analysis set out a minimum standard of care and sought to establish the economic costs of providing it within each model. The results are represented in Table 1 under the column 'Rand per minimum childcare month'.

Table 1: CEA of the Six Models of Orphan Care

Model of care	Site	Rand per childcare month	Rand per minimum standard child care month
Statutory residential care	Nazareth House (Western Cape)	2 938 (3 873*)	2 590 (3 525*)
Statutory adoption and foster care	Durban Children's Society (KwaZulu-Natal)	609	410
Unregistered residential care	Jardim House (Mpumulanga)	996	957
Home-based care and support	Sinisizo (KwaZulu-Natal)	506	306
Community-based support structures	The Pin Project (KwaZulu-Natal)	**	276
Informal fostering/ Non-statutory foster care	Nceba Village (Eastern Cape)	**	325

* including medical costs associated with the child's HIV positive status

** fail to meet material minimum

The study concluded that state-regulated residential care was, in principle, less cost-effective than family and community-based care for orphaned and vulnerable children. However, the authors recognised that this result did not support promotion of 'community-based' programmes in all places at all times. A confounding factor was the research method which restricted extrapolation of conclusions. The research consisted of a set of case studies that sought to compare the economic merits of different models of orphan and vulnerable children care in relation to a projected standard of 'care'. Comparative analysis in these circumstances was constrained by the fact that the models were being applied under very different conditions. This meant, in the first instance, that comparable data was not always easily obtainable.

The material care provided at well-funded children's homes was in no way directly comparable to that provided to children living in poverty. Obviously the care of children living in poverty is cheaper but this does not make it an appropriate policy option. These difficulties were exacerbated in the cases of the Pin project and Nceba village. The informal nature of care in a context of extreme poverty meant that these models could only be judged as being unable to meet a minimum standard of care. Attempts were made to address this limitation by estimating the cost of replicating the model rather than the cost of that model and estimating how much the provision of minimum care would cost in those settings where it was not achieved.

These constraints on comparative analysis highlight the problems with drawing firm conclusions about the efficacy of home and community-based orphan care and support. Firstly, the study shows through its limitations and omissions that the presence, let alone treatment and care of HIV positive children in many home and community-based programmes may be unknown, denied or simply ignored if there is no ready access to public health facilities that are capable of identifying the presence of the virus in the child and providing medical therapies and welfare support. Secondly, the capacity of these programmes to provide effective care and support for HIV/AIDS infected and affected children cannot really be assessed in the absence of, and limited access to, these health facilities. In other words, much depends on the establishment of supporting infrastructure; that is, on the state playing a developmental role with regard to care and support. Thirdly, in view of the above, the scope for 'scaling up' home and community-based programmes is a question to which no answer can yet be given. It is a logical step, in principle, but how it is to be done requires rigorous scenario planning and economic assessment of what the state could provide in the form of infrastructure and of ways of co-ordinating its activities with NGOs and community-based organisations.

The common denominator in the constraints summarised above is the State; more precisely, the absence of a comprehensive initiative by the national government to consider and test ways of combining state, NGO and home and community-based programmes. This means that researchers are not able to assess what combinations show promise for effective management of HIV/AIDS. In other words, the state has yet to create an enabling environment for evolution of an integrated approach for orphan and vulnerable children care and support. The economic debate is contained, instead, within very narrow parameters. On the one hand, the Government persistently emphasises, through its repeated reference to affordability and resources, the absolute financial costs of any form of care and support for those infected and affected by the epidemic. Consequently, the government tends to adopt the position that it is constrained by the limited resources it can deploy and, hence, the state can play only a very limited role in combating the epidemic. On the other hand, NGOs, activists and scientists emphasise the relative costs⁶ and possible savings. The results generally favour the latter and, in specific instances, indicate that the government could play a more constructive development role. However, despite ample demonstration of the cost-effectiveness of specific forms of care and support, the terms of the debate inevitably prevent a comprehensive assessment of various combinations of state and civil programmes. The protagonists, it seems, tend to talk past each other. Nonetheless, they each present factors that will need to be computed into the design and implementation of 'integrated' programmes.

For instance, 'Mother to child transmission' (MTCT) of HIV/AIDS - before, during and after birth of a baby - features prominently in current debate on how to manage

6 Relative costs consider the cost of one action compared to another one aimed at achieving the same end. For example the relative cost of different orphan care options. A focus on relative costs assumes that the outcome is desirable and concentrates on the most efficient way of achieving it. Absolute cost considers the entire cost of an intervention, a focus on such costs implies that a decision is still necessary as to whether the outcome is desirable.

the epidemic. The economic issue is simply that a child's HIV status is a major factor for any assessment of the costs of care and support. Caring for an HIV positive child entails considerably more costs in the form of medical care than for an HIV negative child. There is general consensus in and beyond national government circles that use of antiretroviral drugs could save the lives of 15-20,000 children in South Africa per annum (Soderlund et al, 1999; Wilkinson et al, 2000; Zwi et al, 2000). Furthermore, there is general consensus that the main cost of preventing MTCT does not lie not in the cost of the drugs, but in setting up the infrastructure, in running counselling and testing programmes and in training and employing staff, to ensure effective treatment (Abt, 2000; Hensher, 2000; Roux et al, 2000; Zwi et al, 2000).

Two types of costing studies have been undertaken with regard to the prevention of MTCT, those which examine the budgetary implications and those focusing on the cost effectiveness and possible cost saving of different options. Government research has emphasised the cost of setting up and running programmes to provide antiretroviral drugs (Hensher, 1999; 2000) while others (Connelly, 2001; Marseille et al, 1999; McKerrow, 2001; Stover, 1999; Skordis and Natrass, 2001; Zwi et al, 2000) have argued that the relative costs and direct savings make such intervention cost saving.⁷ While the former is based on the findings of the latter, the latter does not address questions of financing. For instance, Zwi et al (2000) argue that the cost of a comprehensive programme would cost less than 1% of current spending on health care. However, a recent study in Hlabisa district concluded that the current public health budget for the district would not be able to sustain a comprehensive programme (personal communication: F.Tanser, Africa Centre, Mtubatuba).

As the Hlabisa study suggests, the limitation of the economic debate on HIV/AIDS treatment generally, and MTCT programmes in particular, is that the central issues are not only those relating to cost, but where and how the government should allocate public funds. Much the same can be said of the debate about home and community-based programmes. Many NGOs have promoted home and community-based programmes as an alternative to state-based programmes, but the central issue is the need to develop an integrated approach to care and support. Recent research highlights this point. (Desmond and Gow, 2001; Haile, 2000; HEARD,2001; Johnson et al, 2001; Uys, 2000). However, much of the work to date suffers from various limitations⁸ such that the efficacy of home and community-based programmes, let alone of an integrated model has yet to be shown. However, they do provide important guidelines for future research towards development of integrated models of care and support.

Firstly, there is a need for research which takes as its starting point an integrationist position, as opposed to comparing one form of care with another. Cost comparisons are a vital element, but research in this vein alone cannot shift the terms of the debate. For instance, comparisons of programmes cannot show how to 'scale up' one programme in relation to another unless they are set within a broader strategic framework. A government initiative to expand support for home-based care projects, as opposed to village or town situated 'community-based' projects, for example, cannot be assessed thoroughly if there is no specification of the government's broader aims and agenda and the purpose and role of home-based care projects (how they fit into those aims and agenda). In contrast, starting with an integrationist perspective will inevitably draw the attention of the researcher to the question of how to incorporate 'scaling up' of programmes in an economic analysis.

7 C.Brown, at the School of Economics and Management, University of Natal, is currently writing a PhD thesis that focuses on developing a thorough model for economic assessment of the costs of HIV/AIDS prevention and treatment.

8 See HEARD (2001) for a useful discussion of these limitations which include problems with effectiveness measures similar to those encountered in the evaluation of orphan care options and they also pay little attention to the cost implications for other facilities of introducing new models of care into communities.

Secondly, cost comparisons need to be made from several perspectives. For instance, an integrated approach must take into account how promotion of one form of care will affect people's access to, and use of, other forms of care. Comparison of home and community-based programmes with hospital care needs to take into account the potential cost savings in the operation of the hospital. However it also needs to consider whether the shifting of operational costs impose additional burdens, both financial and time, on the people who come to rely on home and community-based programmes with families having to purchase materials and drugs and possibly losing income because time is being used to provide care rather than on productive labour. In a different vein, the costs of providing welfare services needs more thorough investigation, particular in view of projections that the state welfare agencies will not be able to cope with the demand brought on by the epidemic.

Thirdly, there is a need for research into how local conditions influence costs. While it is essential to scale up interventions to deal with escalating problems (increasing levels of illness, death and orphaning), it is equally important to recognise what changes will have to be made to interventions to tailor them to local conditions and to combine them with existing responses. Research is required into how such tailoring should occur, how much it would cost and how local conditions and existing interventions would influence cost structures. A related area of research is to establish the cost of the tailoring, as this will be a necessary part of scaling up interventions.

Fourthly, a particular problem for researchers is the question of how to incorporate the quality of care and support into economic calculations. It is feasible, though difficult as we noted in our discussion of the work of Loening-Vysey and Wilson (2001) and of Desmond and Gow (2001). It requires an assessment of the values that inform a programme, followed by definition of standards of care in line with those values and, thereafter, translation of the standards into material (quantifiable) measures which can be used for economic assessment. However, if research is to assist the development of an integrated programme – in a locality, in a region or nationally - it needs to compare the values, standards and measures of existing programmes in order to project what is desirable and feasible for an integrated programme. This in itself takes the researcher into the realm of scenario planning and into presuming a developmental role.

Conclusion

We have argued that the current interest in home and community-based programmes for orphan care and support is misplaced if it is promoted as an alternative to state-based programmes. Recent research suggests that home and community-based programmes can be more cost-effective than state-based programmes, but to couch debate in terms of an 'either-or' perspective misses the reason for considering home and community-based programmes in the first place. The proposition emerged not only because it was becoming evident that state health and welfare agencies could not cope with the HIV/AIDS epidemic on their own; it arose also in the face of evidence that no agency could cope on its own. In other words, consideration of home and community-based programmes has been part of a process towards considering how to combine the interventions of a wide range of health and welfare agencies.

This process is not always acknowledged in economic research in South Africa. Much of the research, to date, focused on the costs and, occasionally, the benefits of individual interventions. There is a need for research that considers appropriate effectiveness measures and which examines how costs and benefits might change in relation to different contexts and changes in care and support demands, as the HIV/AIDS epidemic escalates.

The development of integrated management strategies, however, requires more than cost effectiveness analysis of different components. Further research is needed into questions of economies of scale and scope, and financing of combinations of different forms of care and support. In particular, identifying how cost and benefit structures change as programmes increase in size and interact with each other is essential. The challenges involved in research of this nature are somewhat different from those encountered in existing work. The main difference is that the focus of current studies on existing interventions needs to be framed within broader terms of reference; notably, economic analysis of possible combinations of different programmes.

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