

## Impact of AIDS on rural livelihoods in Benue State, Nigeria



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### ABSTRACT

This study addresses the socio-economic impact of AIDS on rural livelihoods in Benue State, Nigeria, where HIV prevalence is 9.3% but the number of AIDS cases is still relatively low. About 6% of the study households had experienced illness and death classified as AIDS, and reported high costs in terms of expenditures and time spent on care, funerals and mourning. These demands on time affected income and productivity, while the diversion of resources had implications for investments and savings. Coping strategies varied between households, mainly as a reflection of asset levels, which were often related to the gender of the household head. Reported coping strategies also differed between ethnic groups. First-line relatives were the most important source of support for households under pressure. Erosive coping strategies that undermined the sustainability of livelihoods were used by more vulnerable households following multiple cases of illness and death. Mourning practices, rules of inheritance and stigma tended to increase a household's vulnerability. Currently, Benue State is facing growing adult morbidity and mortality because of HIV infections. A context-specific study of its possible impact in a setting with a still relatively low number of AIDS cases is therefore important for informing local policy development and for building advocacy.

*Keywords: HIV/AIDS, impact assessment, livelihoods, Nigeria.*

### RÉSUMÉ

Cette étude aborde l'impact socio-économique du SIDA sur les moyens d'existence ruraux à Benue State, au Nigéria où la prédominance du VIH est de 9.3% alors que le nombre de cas du SIDA sont relativement bas. Presque 6% de foyers d'étude ont fait face à la maladie et la mort liées au SIDA. Ces mêmes foyers ont signalé que le coût est très élevé en matière de dépenses et de temps perdu sur le soin, les obsèques et le deuil. Ces exigences ont eu un effet sur le revenu et la productivité en matière de temps pendant que le détournement de ressources a eu des implications sur les investissements et les épargnes. Les stratégies de faire face ont été variées d'un foyer à l'autre surtout comme un reflet du niveau des atouts. Ces derniers sont souvent liés au sexe de la tête de famille. Les stratégies de faire face signalées étaient différentes entre les groupes ethniques. La famille plus proche était la source de soutien la plus importante aux foyers sous pression. Les stratégies érosives de faire face qui ont ébranlé l'existence bien soutenue de moyens de vivre ont été utilisées par les foyers les plus vulnérables après avoir fait face aux cas multiples de maladies et de morts. Les coutumes de deuil, les règlements de l'héritage et la stigmatisation ont tendance à augmenter la vulnérabilité du foyer. Actuellement, Benue State subit la croissance de morbidité et de mortalité des adultes à cause des infections du VIH. Une étude spécifique au contexte de son impact possible dans un milieu qui compte un nombre relativement bas des cas du SIDA est importante pour guider le développement d'une politique locale et pour bâtir le plaidoyer.

*Mots clés: VIH/SIDA, évaluation de l'impact, socio-économique, mode de vie, le Nigéria.*

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## INTRODUCTION

Since the early 1990s, several studies have looked at the impact of HIV/AIDS and household responses, mainly in East and Southern African countries where HIV infection has reached rates in excess of 30% of adult populations (Booyens & Arntz, 2003; Kwaramba, 1998; Luzobe, Muheewa, Olaunah, Wandui, & Kalenzi, 2001; Muwanga, 2002; Rugalema, 1999; SADC-FANR, 2003; Shah, Osborne, Mbilizi & Vili, 2002; Yamano & Jayne, 2004). These studies concluded that AIDS has a disproportionate impact on the morbidity and mortality of the most productive age groups. Its impact on households is characterised by a sharp reduction in the available time, labour and other resources of individuals and households, even leading to loss of assets. Because the disease has both a long incubation period and is accompanied by a lengthy period of illness, the socio-economic as well as psychological impact will be felt over a prolonged period. In addition to the suffering this causes, the increase in AIDS prevalence adversely affects individual lives as well as state development and efforts to alleviate poverty. In West Africa, the HIV/AIDS epidemic has developed at a slower pace but infection rates are rising fast. Because countries have their own unique contexts, it cannot be assumed that the findings of East and Southern African studies on the impact of the epidemic can be extrapolated and used in a straightforward way to develop policy in other regions.<sup>1</sup>

Nigeria is in the grip of a growing HIV/AIDS epidemic, with a national adult infection rate of 5.8% in 2001 and 5.0% in 2003, which masks significant regional variations (0.5 - 21%, 2001 data) (Federal Ministry of Health, 2001; 2004). This study on the impact of HIV/AIDS on rural livelihoods was carried out in the state of Benue located in north central Nigeria. In the national antenatal HIV seroprevalence surveys, Benue State recorded high infection rates: 16.8% (1999), 13.5% (2001) and 9.3% (2003).<sup>2</sup> It is estimated that some 250 000 inhabitants of Benue were HIV-positive in 2001 (Ssengonzi & Moreland, 2002). Benue State is facing growing adult morbidity and mortality because of HIV infections. Assuming that non-AIDS-related death rates do not change from now until 2010, the total death rate in that period will rise from 1.50 to 2.25%<sup>3</sup> unless effective antiretroviral therapy becomes widely available.

The present study is one of the first extensive studies on this theme in West Africa and was carried out in an area with relatively low AIDS prevalence. The objective of this study was to analyse the impact of HIV/AIDS on rural livelihoods and assess the implications for action.

In Benue State there is a general awareness among state level policy makers that HIV/AIDS is becoming a major problem and the Benue State Action Committee on HIV/AIDS (BENSACA) has developed a state action plan (FHI, 2001). However, effective responses were not yet noticeable in the rural areas researched. Most local action committees against AIDS were not operational at the time of the study. This research was requested by Benue State Agricultural and Rural Development Authority (BNARDA) to strengthen the information base used for identifying local responses. Research findings were presented to policy makers, traditional rulers, local government and community leaders in September 2004.

A livelihood is comprised of the capabilities, assets and activities necessary for earning a living. A sustainable livelihood is one that can deal with and recover from stresses. This paper starts with a presentation of the methodology used, followed by an introduction to Benue State and an assessment of the prevalence of AIDS in the study population. The impact of HIV/AIDS on livelihood strategies, the costs of care and bereavement and the use of coping strategies are discussed, with special attention to vulnerable groups and the presence of stigma. The article ends with some suggestions for action.

## METHODOLOGY

A community-based selection of respondents was used instead of a hospital or health service-based sample. Twenty-four villages were randomly selected: two in each of the twelve purposefully selected local government areas (LGA). These LGAs represent the variety of livelihoods in Benue State and the main ethnic groups, since the Tiv, Idoma and Igede are living in distinct local government areas. Nine selected LGAs are classified as rural and three as (peri)-urban.

For each of the randomly selected 24 villages, information on three AIDS proxy indicators was collected at the household level ( $N = 4\ 478$ ) by Benue

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State Agricultural and Rural Development Authority (BNARDA) staff resident in the locality. The proxy indicators refer to cases of chronic illness and recent deaths of young adults (15 - 49 years of age) and number of orphans. Chronic illness of adults was defined as being ill for more than 6 months, which seriously affects the capability to work. A 'recent' death is one that took place over the previous 5 years. Orphans included both one- and two-parent orphans aged up to 18 years. The definition of households was all those 'eating from one common pot'. This also included students in school for whom the head of the household provided, but not a son who lived in the same compound with his wives and children and was no longer dependent on his father's resources for his daily needs.

These data on proxy indicators were used to select purposively the 12 villages for the research, one per LGA, including villages with possibly 'lower' (5% or more below the average) and 'higher' (5% or more above the average) cases of chronic illness, young adult mortality, and orphans. For the household survey, 45 households were chosen at random in each village from a complete list of all households that was prepared by BNARDA staff (February 2003).

### Data collection and analysis

The outline of the study design was developed in close consultation with stakeholders in Benue State and resource persons. The research questions were based on a review of other impact studies. Data collection focused on epidemiology, demographic trends, livelihood strategies, available capital or assets (human, physical, natural, financial and social) and causes of vulnerability. These data were gathered at individual, household and community level, mainly through in-depth interviews, focus group discussions and a structured questionnaire.

Field staff originated from Benue State, and were selected on the basis of experience with participatory rapid appraisal (PRA) and knowledge of local languages. They received a 5½-day training on the specific research tools developed for this study. A 3-day training was given to the enumerators involved in the household survey.

AIDS is a stigmatised disease in Benue State. Few people know their seroprevalence status, and many get

tested only when symptoms of AIDS develop. The study therefore was presented to participants as an impact study of the effects of chronic illness on people aged 15 - 49 years. In addition, data on symptoms were collected to assess whether HIV/AIDS was the probable cause of illness or death.

The study took great care to respect confidentiality and all data were kept anonymous.<sup>4</sup> At community level, local leaders were introduced to the objectives of the study and asked for their approval and co-operation in carrying out the study. Selected respondents were again informed about the objectives of the study and their oral consent to participate in the study was solicited.

In each of the 12 study sites, a 5-day qualitative research exercise was carried out between November 2002 and February 2003, which is the dry season when people are more available and access to communities is easier. Fifty-nine Focus Group Discussions (FGD) were held with adolescent boys and girls, adult men and women and community leaders. Over 120 respondents were selected for in-depth interviews based on socio-economic background, gender and the extent to which they had been affected by chronic illness and death.

For the household survey, a total of 508 households were included. Data were entered and analysed using SPSS. Variables were compared between households affected by chronic illness and death, and households without chronic illness. Similar analyses were carried out comparing households affected by AIDS and those affected by disease or death due to other causes. Comparisons were also made for variables between the different ethnic groups and wealth categories.<sup>5</sup> Statistical significance was analysed using chi-square tests for categorical variables or Student's *t*-test for continuous variables.

The results of the qualitative research and household survey were triangulated. In this paper, most findings are reported in an integrated way; data originating from the household survey are presented as percentages.

## RESULTS

### Study area and livelihood strategies

Most people in Benue State live in rural areas. Farming

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is the key livelihood activity for male heads of household, with yam and cassava being the main crops. Households and individuals employ hired labour on their farms if they have the means to do so. Most women do not own land, but are given access to fields by male relatives and in-laws to cultivate their own crops, in addition to their work on the family fields. Compared with men, women have fewer assets and are less likely to cultivate cash crops. Female-headed households rely more on trading and agro-processing to make a living. Sources of livelihood diversification include agro-processing, trade and crafts, which are linked to access to urban centres and market places. Migration to urban areas or rural areas elsewhere in Nigeria, such as cocoa plantations in the south, is another important livelihood strategy.

Nigerian average income per capita was estimated at US\$ 290 in 2001 ([www.unicef.org/statis](http://www.unicef.org/statis)), and as many as 65% of the people in Benue State were estimated to be living in poverty in 1996 (NCS-data, FOS 1999). Infrastructure and basic services are in a dilapidated state, and public investment in these sectors is limited. Moreover, over the past decades farming in Benue has actually become more labour-intensive per unit of harvest because of declining soil fertility, poorly functioning input markets and worsening terms of trade. These developments increase the vulnerability of both households and communities, even though changes in crop mixtures, such as the shift from yam to cassava, have helped to sustain staple food production.

#### Prevalence of AIDS in the study sites

Of the 508 households that participated in the household survey, 30 declared that one household member was chronically ill at the time of the interview. Seventy households had experienced one or more adult deaths (15 - 49 years) in the previous 5 years, and in total 106 deaths were reported. The causes of chronic illness and death were analysed for 135 cases of illness and death.<sup>6</sup> For the purpose of this study, cases were only classified as AIDS-affected if mentioned directly as the cause, or when at least 2 AIDS-related symptoms were reported, such as chronic cough or tuberculosis, chronic diarrhoea, severe weight loss and emaciation, and shingles. Sometimes, the AIDS syndrome is associated with witchcraft or poisoning, but the latter has not been classified as an HIV/AIDS-related symptom in the present analysis.

**TABLE 1. RELATIONSHIP OF CHRONIC ILLNESS AND DEATH WITH HIV/AIDS-RELATED CAUSES**

	% of chronically ill or deceased persons (N = 135)
Declared HIV/AIDS	19%
Probably HIV/AIDS (2 symptoms or more)	15%
Possibly HIV/AIDS (1 symptom)	21%
Definitely not HIV/AIDS	10%
Don't know / other	36%

Table 1 shows that 46 cases of illness or death could be classified as HIV/AIDS-related. This corresponds to 29% of all households that had been confronted with illness and death, of which 8% had experienced multiple cases related to HIV/AIDS. Of the total number of 508 study households, 6% had experienced HIV/AIDS-related illness or death.

No statistical difference was found for the wealth indicators used in this study (area of land cultivated, area of capital-intensive cash crops, area of orchard, possession of a means of transportation). HIV/AIDS is affecting households of all wealth categories equally. The percentage of female-headed households among the AIDS-affected households was not different from the general study population, which suggests that widows tend to join other households instead of forming a household unit of their own.

There were significantly more women (61%) among the AIDS-affected cases than in the non-AIDS-affected cases. People living with HIV/AIDS (PLWHA) were on average 29 years old and had 2.4 dependents. The primary occupations of ill or deceased adults were significantly different from those of heads of households, who were primarily farmers (85%). Among the PLWHA, only 29% had farming as their main occupation; 34% were traders and 16% civil servants. Twenty-three per cent of the chronically ill returned from an urban area to a rural household.

#### Orphan events

The change in orphan events is another indicator of the spread of the epidemic. An analysis of the time trends for the year in which children became orphans showed an increase from 5 reported orphan events in 1997 to 60 orphan events in 2002 among the 508 study households.

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**Responding to the impact of chronic illness and death**

Regarding impact on livelihood strategies and outcome, affected households reported that due to adult morbidity and mortality, 66% lost income and 87% other type of contributions. Fifty per cent of households lost income and contributions due to giving care. Thirty two per cent of households with a chronically ill person and 50% of households that experienced the death of a young adult went into debt. People interviewed reported that their plans for improving housing conditions, expanding fields, investing in trade or business, and starting secondary education had to be postponed or abandoned. They had no reserves left to deal with emergencies.

**Slipping into poverty**

A 37-year-old carpenter-farmer had been entrusted with the responsibility for his extended family by his father, who was a wealthy man. Over a period of 5 years, 8 of his brothers passed away. He believes that some of them died of HIV/AIDS, since their girlfriends also died. Two of his brothers had children who now are being cared for by relatives. Because of these events, the carpenter is in debt. The size of the farm had to be reduced, since there was no money to employ farm labourers or buy seeds. His business suffered because he was not able to complete people's orders on time. To restore his livelihood, he is relying on his wife to get loans to start trading. His aim is to win his lost customers back and start farming again.

(Individual interview PRA study Benue State)

Chronic illness and death can cause changes in livelihood activities. Households need to raise money quickly to meet costs for medical emergencies or a funeral. Several women reported increasing their agro-processing activities to raise additional cash, while other men and women had to take up casual work, often at the expense of working on their own farm. Farming operations and business were reduced in scale due to a reduction of working capital. Other households abandoned certain activities altogether, resulting in less diversified livelihoods. Some had to sell their motorbike to raise cash, which meant ending an income-generating activity, as these bikes are commonly rented out for taxi services. When urban-based migrants were affected by HIV/AIDS, no more remittances were sent to the rural family. These resources were often used to support the education of their younger siblings.

**Time costs for care and support**

Caregiving includes activities such as looking after the ill person, collecting extra water and firewood, preparing special food, running errands, accompanying the person to health facilities, and bringing meals to hospital. The amount of time that the male head of the household, his wife and a boy or girl child spent on giving care was recorded (Table 2). The analysis showed a significant increase in time spent by all household members in caring for the ill, including men and boys ( $p < 0.05$ ), when one household member was chronically ill. The amount of time spent on care differed significantly between household members. Women spent on average 14 hours per week, men 12 hours, and boys and girls 10 and 11 hours per week respectively.

A female household member and a boy child spent significantly more time on care when the chronically ill person living in their household was a PLWHA. The time spent was respectively 18 versus 12 hours per week for women, and 16 versus 7 hours for boys.<sup>7</sup> People living in households where nobody was ill were involved in giving care for an average of 4 - 6 hours a week. This finding underlines the importance of support networks for home-based care in Benue.

TABLE 2. AVERAGE NUMBER OF HOURS SPENT ON CARE PER WEEK

	With chronic illness and death	Without illness and death
Male head of household	12 (16)*	4 (5)
Female household member	14 (16)*	6 (5)
Boy child	10 (5)*	4 (4)
Girl child	11 (7)	5 (3)

\*Significant difference between time spent by members of household with a chronic illness and death and without ( $p < 0.05$ ).

**Time costs for attending funerals and mourning**

Attending funerals and observing mourning rituals can be very time-consuming in Benue State. Table 3 shows the number of days spent attending funerals and on mourning over a period of 12 months. Compared with the Tiv, the Idoma spent more time at funerals and both Idoma and Igede spent considerably more time in mourning. Women mourned over longer periods than men, and faced more restrictions on their movements, affecting livelihood activities.

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**TABLE 3. AVERAGE NUMBER OF DAYS (STANDARD DEVIATION) ATTENDING FUNERALS OR SPENT IN CONFINEMENT OVER THE 12 MONTHS PRECEDING THE INTERVIEW**

	Funeral		Mourning	
	Men	Women	Men	Women
With chronic illness/death (N = 100)	16 (18)	14 (16)	38 (55)	43 (68)
Without CIP/death (N = 408)	11 (12)	10 (11)	16 (27)	21 (39)
Idoma (N = 127)	19 (19)	18 (18)	41 (49)	49 (54)
Igede (N = 42)	8 (6)	8 (5)	25 (49)	49 (94)
Tiv (N = 339)	10 (11)	9 (9)	12 (22)	13 (28)

\*All comparisons between groups of households with or without CIP or death, or between households from Idoma land and Tiv land, are statistically significant at  $p < 0.05$ .

Time spent on mourning and funeral rites will increase by 50% per year in conjunction with the projected increase in death rates, assuming that these practices do not change. In 2010, Idoma male heads of households can be expected to spend 90 days instead of 60 days at funerals and in mourning; their wives will spend even more time (100 days instead of 67). According to our survey, Tiv male heads of households and their wives both spent 22 days in mourning and this will increase to 33 days in 2010.

**Medical and funeral expenses**

The average expenditures on medical care reported for the 6 months preceding the household survey were 29 500 Naira, but showed a large standard variation around the mean (Table 4). These expenditures are

considerable when compared with average income levels and they most likely involve a pooling of resources within households and support networks. Medical expenses were higher for AIDS-related illness than for other chronic illnesses, although this was not statistically significant. There were no differences in overall medical expenses between ill men and women.

In Benue State at the time of the study, antiretroviral therapy (ART) was made available to a few selected PLWHA. Nobody in the study sample reported using ART. Our data on medical expenditures showed a willingness to pay but present levels of medical expenditure would not be sufficient to cover the costs for ART. The question is how much more households can afford to pay and for how long, without having to resort to irreversible changes in livelihood strategies. Much will depend on the effects of ART on a PLWHA's capacity to work and contribute to such costs.

With respect to burials and funerals, the Tiv and Idoma have different traditions. Both groups predominantly practice Christianity. The Idoma bury their dead immediately and will organise a funeral event later, the scale of which depends on the status of the deceased person. Tiv people combine burial and funeral rites in one event, which is postponed until the family has secured the resources needed and all relatives have arrived. In the meantime, the body is kept in a mortuary. Tiv funeral rites have changed over the last

**TABLE 4. AVERAGE MEDICAL AND FUNERAL EXPENSES FOR AIDS-RELATED AND NON-AIDS-RELATED CASES OF ILLNESS AND DEATH OVER THE 6 MONTHS PRECEDING THE INTERVIEW<sup>a</sup>**

Type of expenses	AIDS-related Naira (SD)		Non-AIDS-related Naira (SD)	
Traditional healer*	2 410 (3 059)	(N = 36)	5 238 (11 036)	(N = 82)
Health clinic/hospital	20 156 (30 717)	(N = 36)	14 347 (35 519)	(N = 82)
Chemist/pharmacist	11 723 (46 126)	(N = 36)	3 229 (8 717)	(N = 82)
Transport to clinic/healer	3 226 (2 926)	(N = 36)	3 118 (4 984)	(N = 82)
Other expenses for illness*	0	(N = 7)	1 541 (3 260)	(N = 22)
Mourning (food, etc.)	8 459 (13 733)	(N = 29)	9 930 (11 904)	(N = 60)
Funeral (coffin, etc.)	8 266 (6 692)	(N = 29)	8 307 (8 253)	(N = 60)
Obligations to in-laws	1 429 (1 952)	(N = 28)	2 373 (6 669)	(N = 60)
Other costs related to the funeral	310 (1 339)	(N = 29)	476 (1 778)	(N = 59)
Total medical costs	37 514 (70 738)	(N = 36)	26 346 (41 940)	(N = 82)
Total funeral costs	18 608 (17 862)	(N = 28)	20 165 (17 307)	(N = 59)

<sup>a</sup>Significant difference between the subpopulations of AIDS-related and non-AIDS-related illness or death ( $p < 0.04$ ). SD = standard deviation.

The exchange rate in 2002 - 2003 was about N130 for US\$1.

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decades, and are reported to have become more elaborate and costly. However, the survey data did not show evidence for higher funeral costs for the Tiv as compared with the Idoma.

Average funeral expenses reported by the affected households in the survey mounted to almost 20 000 Naira, not including contributions by others. Funeral expenditures were partly paid for by the household, but others contributed too, which could have involved considerable sums of money or goods for the funeral, in particular when the deceased was a parent or sibling.

If the epidemic is allowed to continue at its current pace, the projections are that AIDS will result in a doubling of adult mortality between 2001 and 2010. In terms of medical expenses, this means that the total expenditure in Benue State between now and 2 010 will be at least 9 900 million Naira (based on the 6-month reference period of the survey). If the more than 250 000 HIV-infected individuals living in Benue State at the time of our study die before 2010, the expenditure on funerals will rise to at least 4 800 million Naira. These figures do not include expenditures in kind, or what households contribute to the funerals of relatives, friends and neighbours.

### Coping strategies to deal with labour loss and expenses

The implications of illness and death are not limited to the ill person and the household where he or she lives. Many more are directly affected because the burden of care is shared among households: the ill person might be moved from one household to another to be cared for, or households might make a contribution in cash, kind or labour, or by taking responsibility for the bereaved.

#### Affectedness: a dynamic process

The head of a relatively better-off household described how his divorced sister, who was living in Abuja, returned ill to the community and stayed in his house. When it was clear that she was not going to survive, he brought her to their father's place where she died soon after. In the process, the brother spent all his savings on medical expenses and funeral costs. There was no money left to hire labour for his farm, and his wives therefore had to do much more work in the fields. He was so strapped for cash that when the roof blew off his house, he had to ask for a loan for the repairs. He also withdrew from social functions because he lacked money. His wives were relieved that their sister-in-law did not die in their house, as this would have caused even higher expenditure.

*(Individual semi-structured interview – Benue State)*

Illness and death have always been part of daily life and households have developed strategies for dealing with this. Households cope with losses of labour in various ways. In this study, 45% of all affected households reported that they hired others to help with work in the fields; 62% received support in the form of field labour from their families; 29% reported that they had reduced the area under cultivation; and only 4% reported changes in crop mix (from yam to cassava) to reduce their labour requirements. Still, the term 'coping' can be misleading as it suggests that a household can actually manage, but this may not be the case when the long-term costs are actually undermining their livelihoods (Rugalema, 1999).

Table 5 gives an overview of how study households affected by AIDS or other chronic diseases paid for costs related to medical expenses and funerals. The table indicates the percentage of households using a particular strategy, but does not provide information on the size of the actual contribution. The most frequently reported strategies in Benue State were receiving contributions from other people (reported by 87% of the households), taking loans (75%), and selling farm produce (72%). Loans were obtained from informal credit organisations or through relatives and friends, which eventually could become gifts. For most households, selling off farm produce did not affect the next season's farming operations, but reduced their capacity to invest and spend on future projects.

TABLE 5. OVERVIEW OF COPING STRATEGIES TO PAY FOR EXTRA EXPENSES

Coping strategies	All affected households
Contribution from others	87%
Took loans	75%
Sold produce	72%
Sold seeds in storage	40%
Sold crop in field	38%
Income generation	31%
Savings	25%
Sold livestock	23%
Reduced hired labour	19%
Salary	17%
Reduced school fees	12%
Sold property	10%
Casual labour	8%
Sold land	1%

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Livelihood activities of the Tiv and Idoma differ and so do coping strategies, which underlines the importance of context-specific analysis. The Tiv farm on a larger scale and keep more livestock (CWIQ, 2001) and therefore have more surplus produce that can be sold in times of emergency. The Idoma own more motorbikes and other means of transportation, enabling activities such as service delivery and trading, and they have a longer tradition of labour migration. Coping strategies also vary according to asset availability. Tiv households with smaller land size under cultivation (< 2.99 ha), more frequently reported the sale of property ( $p = 0.03$ ) and reduction in the use of hired labour than those owning more land ( $p = 0.04$ ). Idoma households with over 2.99 ha reported the sale of seeds ( $p = 0.024$ ) more often than those with less land. For both groups, it was found that those with over 2.99 ha under cultivation reported the sale of livestock more frequently than households with less land ( $p = 0.054$ , not statistically significant).

Households took an advance on future earnings by reducing their investment in farming (19% reduced expenses on hired labour), stopped the payment of school fees (12%), started to work as a casual labourer at the expense of their own farms (8%), or sold land (only one household). More Tiv reported taking children out of school than Idoma. The Idoma people seem to value education more highly (CWIQ, 2001) and are therefore more reluctant to take their children out of school to save money on school fees. Several households (13%) reported that they had to reduce their food consumption from three to two meals a day. In this study, 17% of households, half of them female-headed, reported using these potentially erosive coping strategies.

One finding of this study was that the coping pattern of AIDS-affected households in Benue did not differ from that of households affected by other diseases. However, given the projected spread of the epidemic, AIDS-affected households may have to resort to more erosive strategies in future when having to deal with multiple cases of illness and death over a short period of time.

### Support systems and safety nets

Initially, ill people and their close relatives prefer to hide their difficulties from others and opt for coping strategies that lie within the household's means and are

not visible to others. It is only when they can no longer manage on their own that they will involve outsiders in their efforts to deal with the situation. First-line relatives, with the assistance of other members of the extended family, were identified as the most important source of support for the ill and the bereaved, with the community groups to which household members belong (e.g. age groups, women's groups) also occasionally providing some help. No faith-based organisations as such were found to be involved in care and support activities in the study communities, but fellow church members were often cited as contributors.

The importance of having a social network was reflected in the reliance on contributions from other people (in cash, kind or labour) by most of the affected households, but the size of the contributions differed according to a household's social capital. Social capital implies reciprocity and has to be built and maintained, requiring investments in time and resources. Poorer households in particular find it hard to meet such implicit obligations and, as a result, may have less help available to them in times of need.

Information from focus group discussions suggested that the willingness to contribute to the costs for medical care was higher when recovery is expected. Several people stated that support levels decreased when an illness turned into a more chronic condition. In fact, help was offered more often during funerals than during the period of actual illness. This attitude may have implications for the degree of support offered to PLWHA, since HIV/AIDS is widely perceived as a fatal condition. There is little understanding of how the quality of care may improve the length and quality of life.

AIDS-affected households may lose social capital. In this study they suffered more from social isolation (27%) than households experiencing chronic illness or death from other causes (9%). People withdrew actively from social networks out of fear of rejection and stigmatisation by others; some stopped participating because they could no longer afford the contributions.

### Vulnerable groups

The systems described above have begun to fail some widows because much less support is provided these

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days by in-laws. Many widows interviewed found it difficult to make ends meet after the death of their husbands. Our data suggest that about 60% of the female-headed households were poor. Brothers of the deceased husband used to play a major role in supporting widows, often by marrying them. This practice is now on the decline, but has not been replaced by other support systems. Moreover, when a woman is widowed, her husband's relatives may confiscate the fields and any other household assets, leaving her destitute and dependent for support on her own relatives. These problems will affect her children too, as they now live in a more impoverished household, have weaker rights to land and less strong links with their father's family. The position of a widow depends on the quality of the relationship with her in-laws, and on whether she has male children of a certain age; a widow with young children is more vulnerable. The treatment of widows seems especially harsh among the Idoma.

At present, orphans are fostered mostly by relatives of the deceased parent. Thirty-four per cent ( $N = 169$ ) of the households reported having orphans (for a total of 374 orphans), averaging 2.2 orphans per household. One-third (34%) of the households with orphans had experienced chronic illness and death, which was significantly more than households without orphans (13%) ( $p = 0.000$ ). Orphans moved between households, and 124 children (33%) joined the surveyed households during the previous 2 years, while another 52 orphans left these households in that period.

Studies from Southern Africa reported that grandparents play an increasingly important role in the upbringing of their orphaned grandchildren (Knodel & Im-em, 2004; Marcus, 2000 in Drimie, 2002). In Benue, this is not yet happening on a wide scale. Ten per cent of the orphans lived with their grandparents. Several elderly people looking after their grandchildren were interviewed. They found it hard to cope with the extra charges. Instead of being looked after by their own children, they had to start working again.

The methodology used in this study was not specifically designed to study livelihoods of orphans and other vulnerable children. Children were not interviewed. Studies conducted in East Africa

(Rugalema, 1999) reported a more intensive use of child labour in fields or for caregiving, and more children were taken out of school by foster families. The present study has found some evidence of such practices: 29 (8%) orphans were engaged in economic activities. Five of the orphans carrying out economic activities were of primary school age (< 12 years), whereas 24 were older than 12 years. Information from projects working with sex workers and youth suggests that some foster children are highly vulnerable to sexual abuse and violence (LATH, 2003). There are also indications that girl orphans are at risk of early marriage, around the age of 15.

### Stigma

Stigma and discrimination present problems for the effectiveness of prevention efforts, the willingness of people to know their HIV status, the care and support provided and the uptake and adherence to antiretroviral treatment (ART) (Brown, Macintyre & Trujillo, 2003; Foreman, Lyra & Breinbauer, 2003; ICRW, 2002; Nyblade, Pande, Mathur, MacQuarrie, Kidd, Banteyerga, *et al.*, 2003; Taylor & DeYoung, 2003).

HIV/AIDS is a highly stigmatised disease in Benue State and disclosure can be harmful to the PLWHA and his or her family. Stigma may reduce the level of assistance to and the status of the entire household, thus affecting their livelihood strategies and access to credit. In one community, for example, many people thought it was useless to lend money to someone living with HIV/AIDS, 'because they are faced with much expenditure and are inevitably going to die before they can ever pay back the loan'.

In eight of the twelve communities, stigma was expressed in terms of fear of infection and death, also showing the low level of knowledge about transmission routes: '... because such a disease like AIDS that has no cure ... one has no option to stay clear even if it is your brother or sister. There is fear that eating in the same place with the person can make you contract the disease' (FGD male youth, highly affected community). In half of the study communities, including villages with medium or high prevalence, local leaders denied that people living with AIDS were present, out of fear that their village would be stigmatised as an 'AIDS community'.<sup>8</sup>

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The association of HIV/AIDS with multiple sexual partners was given in some FGDs as a reason for rejection and disapproval, and has led to the withdrawal of assistance for PLWHA: 'If a person becomes infected with HIV, we simply don't help. This person has obviously lived a reckless life, running after worldly things, and so we don't want to associate with this kind of person.' (FGD Male youth, medium affected community). Young women bear the brunt of the blame for transmitting HIV/AIDS. Widows are more often blamed for the death of their husbands and discriminated against than widowers, when AIDS is suspected to have caused the death of the spouse. Unlike widows, widowers remarry relatively easily, although they may have to look for a new wife away from their own community.

### IMPLICATIONS FOR ACTION

The previous sections showed how HIV/AIDS-associated illness and death impact on labour availability, expenditures, productivity and income, livelihood strategies and outcomes. The direct consequences of illness and death, such as the loss of labour and income, in combination with high costs for medical treatment and funerals, can trigger a household's downward spiral into poverty. Diverting savings and investments into care and funerals affects the economic development and intensifies vulnerability of families, communities and of Benue State. Moreover, many PLWHA in this study were the people with more diversified livelihoods and who maintained rural-urban linkages. These activities are important for the economic development of the state, while losing so many young people weakens the fabric of society.

HIV/AIDS is one of many factors impoverishing households in Benue State and is not the only disease with which people have to deal. However, this epidemic warrants special attention because it directly affects the most productive age groups and has systemic effects with major costs for the economy and society (Barnett & Whiteside, 2002). It is therefore crucial that the spread of the epidemic is halted, affected people and households receive care and support, and opportunities for mitigating the impact are seized. The first hurdle to overcome involves reducing the stigma, without which other interventions will have only limited effect. Fear of stigma and rejection now hampers the ability of communities and individuals to deal actively with the epidemic.

Medical care can be improved by providing adequate information and services closer to the community, cheaper drugs for treatment of opportunistic infections, and access to ART. ART is becoming available in towns, and it will be a challenge to accelerate access to it in the rural areas of Benue State, where health services are functioning poorly. Long-term treatment with antiretrovirals depends not only on access to 'cheap' drugs but also but requires an effective basic health system (Streefland, 2005).

In Benue, funeral and burial services and mourning rites are very costly, making it even harder for the bereaved to restore their livelihoods. Family heads decide on funeral arrangements and the length of the mourning period. Given that mortality rates are likely to increase in the coming years, it is important to start discussions now on possibilities for reducing the costs to the bereaved, while still paying respect to the deceased person and observing customary rites.

Widows and children need better protection with respect to succession rights, which would render them less vulnerable to the impact of HIV/AIDS. Families can decide not to disinherit widows and protect the rights of orphans, as some already do. In particular, community and religious leaders have a role to play in raising awareness and promoting protective measures for the growing group of destitute people (vulnerable children, widows, elderly people who have lost support or are taking care of young grandchildren; and poor, affected households).

Another challenge is how best to strengthen and support existing local safety networks so that these can become more effective without becoming overwhelmed, and how to sustain the productive and reproductive capacity of rural households in view of the demographic and socio-economic effects of the epidemic. With increasing levels of HIV prevalence, caregivers in Benue State will experience growing demands on their time. Support must build on local initiatives and existing safety nets, avoiding the development of external or parallel support systems that cannot be sustained. PLWHA and their organisations, their families and communities should be central in the development of action programmes. A context-specific approach is important, given that entry points differ between the zones and type of households.

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Economic growth in combination with poverty alleviation will increase the resilience of communities, thus influencing the support available to affected households. Local labour markets are important for affected households (with resources) who are looking for replacement labour. These markets are also crucial for the coping of those households who need money urgently and have members who are strong enough to work. Policy priorities include improving the productivity and profitability of farming, enhancing opportunities for self-employment that do not require much investment, and increasing access to financial services. With respect to labour-saving devices, the priority is to reduce the burden of care and household chores (fetching water and firewood) and, probably, of agro-processing for women.

## CONCLUSIONS

Even in a setting where the prevalence of AIDS is still relatively low, the epidemic clearly impacts on the livelihoods of affected households and first-line relatives. Systemic effects on productivity, on investments and in local safety nets were found, as well as tendencies towards exclusion. The overall pattern of impact is not that different from those found by studies conducted in East and Southern Africa, but causes of susceptibility and vulnerability, and sources of resilience and resistance, are specific to livelihood systems and ethnic groups. These specific insights present a basis for sound policy making. The study further shows that impact mitigation should go beyond care for orphans and vulnerable children or emergency aid for affected households. Context-specific impact studies in low AIDS prevalence areas provide an early warning system, support advocacy by sensitising policy makers, communities and civic organisations to future problems, and identify who is vulnerable, thus specifying the need for mitigating interventions.

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## Footnotes

<sup>1</sup>Only two studies addressed socio-economic consequences of HIV/AIDS in West Africa – one study in Burkina Faso (FAO, 1997) and one study in the Ivory Coast (Bechu, Delcroix & Guillaume, 1997). However, the first did not address consequences of the epidemic for farming systems and the last was an urban study based on projections using few primary data.

<sup>2</sup>The decline in HIV prevalence seems to be caused more by changes in survey methodology and increasing infertility and mortality of young women than resulting from more effective prevention campaigns.

<sup>3</sup>The data for 2001 were used for the calculations presented and discussed in this paper. The more than 250 000 individuals in Benue estimated to be HIV-positive in 2001, will fall ill and die in the period up to 2010, assuming that ARTs will not become widely available. The Policy Project projected that the annual number of AIDS deaths will increase from 9 900 in 2000 to 29 300 in 2010 (Ssengonzi & Moreland, 2002). Assuming that non-AIDS death rates will not change until 2010 and taking into account population growth, the total death rate will increase from 1.50 to 2.25%, which is an increase of 50%.

<sup>4</sup>Prior to the study, approval from the ethical committee of the Ministry of Health, Benue State was requested and obtained.

<sup>5</sup>The household survey took special care to make sure that *de facto* female-headed households were identified. However, a statistical analysis according to the gender of the heads of the household was not possible given the small number of cases.

<sup>6</sup>For one deceased person the information on the cause of death was not available.

<sup>7</sup>For men the difference was not significant and for girls there were insufficient cases to analyse.

<sup>8</sup>In 1999, a television documentary on HIV/AIDS focused on one of the communities in Benue State. The programme led to stigmatisation of this site by surrounding villages. Farmers could not sell their produce and young men who tried to enlist in the police force were rejected and had difficulties finding wives.

<sup>9</sup>In comparison: N30 000 is the equivalent of 5 months' salary for a government employee and a year's benefit for small farmers selling their surplus production. Young men will need to work more than 85 days while making yam heaps or spend 150 days weeding.

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