

Chapter 4

The Socio-economic Impact of HIV/AIDS on Children in a Low Prevalence Context: the Case of Senegal *

Cheikh Ibrahima Niang and Paul Quarles Van Ufford

(e-mail: pqvanufford@unicef.org)

Summary: This chapter analyses the socio-economic impacts of HIV/AIDS on children in Senegal as well as the impacts of the response policies implemented by the different actors. Data were collected at seven research sites across the country, and complemented by a review of available reports and articles. Their analysis reveals an insignificant nation-wide impact of HIV/AIDS in sectors of health, education, demography and economy. This is reflected in the relatively low and stable HIV prevalence rate since the mid-1980s, which may be attributed to the interplay of a complex set of social and behavioural factor, and a successful policy to fight against the spread of the disease. The main features of this adequate policy consist of a timely response, an eagerness to anticipate on new developments, the strategic involvement of religious and political leaders, effective STD-control programmes, and the construction of strong responses at the community level. Yet, at the family and individual levels a clear impact of HIV/AIDS was identified, which could often be related to the specificity of the disease. For HIV/AIDS-affected families, health care expenses constitute a heavy burden. The presence of HIV/AIDS in families entails a variety of forms of instability and thus contributes to unstable and progressively degrading living conditions for children, girls in particular. The disease was found to explain several forms of matrimonial instability as well as the decline of social networks over time. Finally, HIV/AIDS appeared to have a strong impact on self-perception, emotional stability and the construction of individual and family identities, among adults as well as among children.

JEL: D13, I12, I31, I38, J13

*** This study presents the views of its authors and not the official UNICEF position in this field.**

UNICEF-IRC (www.unicef-icdc.org)

Florence, June 2002

This is chapter 4 of the overall study “AIDS, Public Policy and Child Well-Being” edited by Giovanni Andrea Cornia.

AIDS, PUBLIC POLICY AND CHILD WELL-BEING *

edited by Giovanni Andrea Cornia

Table of contents

Introduction - *Giovanni Andrea Cornia*

Part I: Overview of the HIV/AIDS Impact and Policy-Programme Responses

1. Overview of the Impact and Best Practice Responses in Favour of Children in a World Affected by HIV/AIDS - *Giovanni Andrea Cornia*

Part II. The Social and Economic Impact of HIV-AIDS on Children:
Evidence from Eight Country Case Studies

2. The Impact of HIV/AIDS on Children: Lights and Shadows in the “Successful Case” of Uganda - *Robert Basaza and Darlison Kaija*

3. The Impact of a Growing HIV/AIDS Epidemic on the Kenyan Children – *Boniface O.K’Oyugi and Jane Muita*

4. The Socio-economic Impact of HIV/AIDS on Children in a Low Prevalence Context: the Case of Senegal - *Cheikh Ibrahima Niang and Paul Quarles van Ufford*

5. HIV/AIDS, Lagging Policy Response and Impact on Children: the Case of Côte d’Ivoire - *Jacques Pégatiénan and Didier Blibolo*

6. The Current and Future Impact of the HIV/AIDS Epidemic on South Africa’s Children - *Chris Desmond and Jeff Gow*

7. Perinatal AIDS Mortality and Orphanhood in the Aftermath of the Successful Control of the HIV Epidemics: The Case of Thailand - *Wattana S. Janjaroen and Suwanee Khamman*

8. HIV/AIDS and Children in the Sangli District of Maharashtra (India) - *Ravi K. Verma, S.K. Singh, R. Prasad and R.B. Upadhyaya*

9. Limiting the Future Impact of HIV/AIDS on Children in Yunnan (China)
China HIV/AIDS Socio-Economic Impact Study Team

Part III: The Sectoral Impact of HIV-AIDS on Child Wellbeing and Policy Responses

10. The HIV/AIDS Impact on the Rural and Urban Economy - *Giovanni Andrea Cornia and Fabio Zagonari*

11. Poverty and HIV/AIDS : Impact, Coping and Mitigation Policy - *Tony Barnett and Alan Whiteside*

12. Mitigating the Impact of HIV/AIDS on Education Supply, Demand and Quality - *Carol Coombe*

13. The Impact of HIV/AIDS on the Health System and Child Health - *Giovanni Andrea Cornia, Mahesh Patel and Fabio Zagonari*

14. Increasing the Access to Antiretroviral Drugs to Moderate the Impact of AIDS: an Exploration of Alternative Options - *Pierre Chirac*

15. The Impact of HIV/AIDS on Orphans and Program and Policy Responses - *Stanley Phiri and Douglas Webb*

* This project was started in 2000 at the UNICEF’s Innocenti Research Centre under the leadership of the Director of the Centre and of the Regional Director of the Eastern and Southern Africa Region Office (ESARO) of UNICEF. Giovanni Andrea Cornia of the University of Florence took care of the framing, implementation and finalisation of the study, with the assistance of Leonardo Menchini. The project could not have been implemented without the support of many colleagues in many UNICEF offices around the world. The financial support of the Italian Government and UNICEF ESARO is gratefully acknowledged. **The papers included in this study present the views of their authors and not those of UNICEF.**

1. Introduction

The present chapter examines the socio-economic impacts of HIV/AIDS on children in Senegal as well as the impacts of the response policies implemented by the different actors. The data presented here concern the results of primary data collection at seven research sites across the country, as well as of secondary data collection that occurred mainly in Dakar. The chapter is structured around four major blocks. The first part briefly introduces the situation with respect to HIV/AIDS in Senegal, some basic data and an analysis of the major factors that are likely to have contributed to the low and stable HIV-prevalence rate, which is so characteristic for this West African country. The next part involves a basic outline of research questions and the various methodological aspects that have characterised the rather complex venture of carrying out a research among the vulnerable group that constitute HIV/AIDS-infected and affected adults and children. The third part presents the main research findings. It is divided into analyses of the socio-economic impact of HIV/AIDS at the national, community/household and individual levels. The final part summarises major conclusions in relation to the initial research questions.

1.1 HIV/AIDS in Senegal

In the context of Sub-Saharan Africa, the case of Senegal is a rather particular one, in that the HIV-infection rate has been at once low and stable since the first cases were detected in the mid-1980s (Meda et al., 1998). In fact, whereas for Sub-Saharan Africa the average HIV-prevalence rate in the general population is about 8%, this figure is 1.4% in Senegal (ONUSIDA, 2000). However, even if global prevalence is low, there are nevertheless important discrepancies between the social groups among which the serological samples have been taken. Thus, right from the outbreak of the epidemic, high prevalence rates have been recorded among sex professionals; a study carried out in 1989 mentioned a rate of 44.8% among sex professionals in Ziguinchor and rates higher than 30% were noticed in Kaolack (Sankale et al., 1989). It appears from the table below that, today, sex workers continue to reveal the highest prevalence rates whereas pregnant women have the lowest.

Table 1 : HIV-prevalence among specific groups (estimates for 1999)

Population	HIV prevalence rate
General population	1.4%
Pregnant women	1.2%
Prisoners	3%
STD patients	3%
Tuberculosis patients	10%
Hospital prevalence	15%
Sex professionals	20%

Source : ONUSIDA/OMS, 2000a

The distribution by sex of the number of people infected with HIV shows a comparatively lower number of infected women. According to the estimates for the year 2000, among the 80,000 people infected with HIV in Senegal, 35,000 are women. However, this sex ratio has evolved progressively since the early 1990s, and the figures indicate a gradual feminisation of the epidemic. In fact, whereas in 1987 the number of infected women represented only 10% of the total, this percentage had

already risen to 30% in 1992 and currently is estimated to be somewhat less than 50% (cf. table 2).

In 2000, the estimated number of children living with HIV was 3,000 (ONUSIDA/OMS, 2000a). The breakdown by region of HIV-prevalence among adults, women and children is presented in the following table. It appears that the regions of Kaolack and Fatick are relatively hard hit in terms of number of infected persons in comparison to their share of the total population.

Table 2: Breakdown of HIV-prevalence by region for adults, women and children (estimates for 2000)

	% of total population	Total		Adults	Children (0- 15 years)	Women
Dakar	24%	20,000	25%	19,400	600	9,000
Kaolack	12%	14,000	18%	13,600	400	6,000
Thiès	14%	8,800	11%	8,500	300	4,000
Fatick	6%	7,700	10%	7,400	300	3,000
Diourbel	9%	7,200	9%	7,000	200	3,100
Saint-Louis	9%	5,800	7%	5,500	300	2,600
Louga	6%	5,500	7%	5,200	300	2,400
Kolda	8%	4,500	6%	4,300	200	2,000
Ziguinchor	6%	3,500	4%	3,300	200	1,500
Tambacounda	5%	3,000	4%	2,800	200	1,400
Sénégal		80,000		77,000	3,000	35,000

Source : PNLs (Programme National de Lutte contre le SIDA), 2001

Yet, much higher prevalence rates characterise specific areas with high emigration rates. In Northern Senegal, for instance, HIV/AIDS prevalence rates of 23% were observed among the adult population of some villages where links between prior emigration and HIV have been clearly and strongly established (Kane et al., 1993).

Low and stable HIV-prevalence also induced the relatively low official number of people living with AIDS. As regards the number of AIDS cases, increases have been recorded only for the years 1986-1988, 1992-1994, 1996-1997, even though on the whole, the number has remained comparatively low. In Senegal, approximately 5,000 persons died of AIDS in the year 2000. Since the outbreak of the epidemic, the estimated cumulative number of people who died of AIDS is 30,000.

The low intensity of the HIV epidemic up until today is reflected in the forecasts carried out by the National Programme against HIV/AIDS (PNLS). While previous forecasts for Sub-Saharan Africa turned out to underestimate the spread of HIV/AIDS (in 1999 there were 23.5 millions people living with HIV against 9 million as forecast in 1990), the forecasts for Senegal have proven to overestimate its development. While according to 1997 forecasts, HIV-prevalence would be 2.3% in 2000, current estimates put this percentage at 1.4 (cf. table 1). It is expected that the prevalence rate will stabilise at about 2.8% over the years 2003-2008.

Low and stable prevalence rates and prevention policies

The low and stable HIV prevalence rate has led some researchers to think of the hypothesis of the existence of biological factors susceptible to limit the spread of HIV (Mboup 1996). However, the biological hypothesis does not seem to account at least totally for the particular epidemiological situation in Senegal (Meda et al. 1998).

Social and cultural hypotheses have been forwarded as well. These involved the explanatory value of, for instance, widespread male circumcision, generally low consumption of alcohol, and relative social cohesion around strong religious values that encourage the control of sexuality. In the same respect, the relatively late age of first sexual activity, the low level of extra-marital sexual relations, and high condom use during extra-marital sexual relations, especially commercial sex, have been identified as well. However, some authors have emphasised that this apparently favourable behavioural context has been under increasing pressure – as elsewhere in Africa – in the wake of migration, urban development and modernisation (cf. ONUSIDA/OMS 2000b).

That is why, according to several reports, the low and stable HIV prevalence rate finds at least part of its explanation in the policy response. In particular, effective efforts in the fields of STD-control and treatment, condom promotion, and the early and sustained commitment from political and religious leaders have had a considerable effect in limiting the general population's exposure to HIV.

Furthermore, mention is often made of the existence of a public health policy based on basic service delivery and information to high risk groups, a strong tradition of community engagement in favour of health and development, and a positive dialogue with religious and community leaders. With regard to the latter aspect, the national program against AIDS made use of the specificity and diversity of services requested according to the type of leader. For instance, parliamentarians were expected to work for the campaign against HIV/AIDS during the state budget voting sessions, whereas religious leaders were asked to talk about abstinence and fidelity (ONUSIDA/OMS 2000b). A guide on *Islam and Aids* was developed that propagated the advantageous role of Islamic prescriptions in the prevention against HIV/AIDS and at the same time recommended a recourse to religious sermons and lectures to better protect people from HIV/AIDS. The consensus about condoms did not involve religious leaders' support for the circulation of condoms, but it helped avoid « a war against condoms ». In fact, the success of the promotion of condom use is often interpreted as being the result of an approach that integrates cultural values. The concept of « *sutura* » (which signifies discretion in Wolof) is described as having been particularly used in the communication pertaining to stories that illustrate the involvement of female sex workers in the handling of the condom.

A recent document, which identifies best practices in the fight against HIV-AIDS in Senegal, puts forward the following elements related to Senegal's policy response to the epidemic : the existence of a policy of legalisation of and STD treatment among sex-workers since well before the outbreak of the epidemic ; a secure blood transfusion policy since 1970 ; the integration of STD treatment in family planning activities since the early 1980s ; the health sector reforms that favour the access to care and the participation of the population in the management of the health system ; the existence of a strong network of youth and women's movements as well as religious structures receptive to social mobilisation activities (Groupe Thematique ONUSIDA/Senegal, 2001). In terms of general approaches, the report underlines that the specificity of the intervention efforts in Senegal lies in its timeliness, and the adoption of a cross-sector and integrated approach. Illustrative for the timely reaction to new developments is the fact that Senegal had elaborated a sentinel observatory on HIV-prevalence already by the end of the 1980s. Ever since, the number of sentinel

sites and the diversity of target groups have progressively increased. In 1997, Senegal served as a pilot country for the implementation of regular social and behavioural surveys. The combined collection of biological and behavioural data has been accompanied by consistent capacity building. In fact, the national laboratory for bacteriology and virology has become a reference centre for sub-Saharan Africa. A more recent illustration of the anticipatory attitude towards new developments in HIV/AIDS prevention and treatment, is the fact that Senegal is among the first African countries to have undertaken negotiations with pharmaceutical companies and to have obtained substantial price reductions for antiretroviral drugs.

Finally, the analysis of best practices highlights, among other factors, the focus of interventions on specific groups (high risk and vulnerable groups, religious and community leaders, journalists, etc;) the attention paid to the social and cultural context, the stability that characterises the National Programme for the Fight against Aids, and the strong political commitment at the highest level of the State.

2. Research methodology

The methodological approach that was adopted for the present research consisted of carrying out an analysis at the national, community (social groups, networks, community-based organisations), household (including nuclear as well as the extended family) and individual levels. The latter particularly deals with issues such as self-image, emotions and sentiments, and stress.

To analyse the socio-economic consequences of HIV/AIDS for children, it was assumed on the basis of the literature survey that HIV/AIDS might have an impact on :

- physical capital (property, financial savings, investments, production),
- social capital (social relationships, social networks, solidarity arrangements, family structures),
- human capital (education, health, nutrition).

These types of capital exist at the individual, household and even community levels and constitute therefore a relevant framework of analysis (cf. Bollinger, Stover and Diop 1999). In order to take into account the variety of ways in which HIV/AIDS impacts on children, the survey design included children who live with HIV/AIDS and children whose parent(s) live with HIV/AIDS (often, both situations prevailed).

The research methodology involved primary and secondary data collection. The latter were notably obtained through existing UNAIDS statistics and national epidemiological data on HIV/AIDS, as well as through a review of relevant demographic and socio-economic surveys. Secondary data principally provided the basis for an analysis of national level social, demographic, sanitary and economic indicators. In addition, primary data were collected at seven research sites. Table 3 provides the main characteristics of these localities.

Table 3 : Recapitulation of the main characteristics of the research sites

Locality	HIV/AIDS prevalence	Ethnic groups	Other features
Dakar	1.3%	cosmopolitan city predominance of Wolof	Capital of the country/ High population growth/ substantial socio-economic inequality
Kaolack	1.8%	Wolof, Serere	Major commercial crossroad near border with Gambia /important movements of traders, seasonal workers, farmers, prostitutes, etc...
Thiès	1%	Wolof, Serere	Mining and tourist region (important population movements)
Mbour		Serere, Wolof, Mandinka	Important influx of tourists, seasonal fishermen and prostitutes/ drug trafficking
Saint-Louis	0.9%	Wolof, Toucouleur	After a long spell of decline (1960-1990) the city is now experiencing some expansion of tourism
Ourossogui		Toucouleur, Peul	Substantial migration to Côte d'Ivoire, Central Africa and France / strong custom of marrying one's migrated brother's wife or one's migrated wife's sister
Tambacounda	0.8%	Mandinka, Soninke, Peul	Poor region/ strong community-based management of HIV/AIDS

Their ethnic and socio-economic diversity as well as the presence of rural and urban areas justifies the choice for these sites, which makes the sample to a large extent representative for Senegal as a whole. In addition, locations with relatively high and low HIV-prevalence rates are included.

In view of the pioneering nature of the present study (no earlier studies have been carried out on the question), several qualitative and quantitative research techniques were used so as to increase data collection capacity and to allow for triangulation of information obtained. A crucial component of the approach consisted of systematically comparing two categories of respondents :

- people living with HIV/AIDS and people affected by AIDS : i.e. children living with AIDS, orphans, adults living with AIDS, parents of children not orphaned by AIDS and parents or foster parents of children living with AIDS and parents or foster parents of children orphaned by AIDS.
- people not living with HIV/AIDS or adults not living with AIDS, parents of children not orphaned by AIDS.

At each research site, an epidemiological data sheet was compiled with the assistance of medical personnel. It concerned anonymous data on adults and children living with HIV/AIDS known by the local health structure. Concomitantly, a sample was drawn from the epidemiological data sheet, but on other occasions simply all cases were selected because of low numbers of people identified. For the selected adults and children, the medical staff of local health centres filled out anonymous medical data sheets. The sheets notably contain data about known serological status and socio-demographic background of families involved. Subsequently, local medical staff was trained to administer the household and individual questionnaires. The research team took care of questionnaires for control groups that were selected on comparable social and demographic profiles. Additional information was obtained through case studies and through an analysis of drawings made by children (4 to 12 years of age). The

children were asked to draw their families, their dreams and what they would like to be in the future and to comment on their own drawings. They were selected with the collaboration of the medical doctors treating them and with the prior agreement of their parents or foster parents. Drawing was discussed in presence of medical staff known to the children.

Table 4 : Data collection instruments, survey populations

Instruments	Surveyed population	
	Cases	Control group
Epidemiological data sheet	Adults and children living with HIV/AIDS	-
Child-centred medical data sheet	Children living with HIV/AIDS (n=34)	-
Adult-centred medical data sheet	Adults living with HIV/AIDS (n=100)	-
Household questionnaire	Adults living with HIV/AIDS (n=100)	Adults not living with HIV (n=100)
Individual questionnaire on children (administered to parents)	Children living with HIV/AIDS (n=34)	Children not living with HIV/AIDS (n=34)
Children's drawings	Children living with HIV/AIDS (n=7)	Children not living and not affected by AIDS (n=7)
Case studies	Adults living with HIV/AIDS, or adults of whom a family member died from AIDS (n=10)	-

Finally, semi-structured interview guides were used to obtain information among key-informants in ministries, international organisations and NGOs, as well as among actors directly in contact with children and adults living with HIV/AIDS and their families.

3. Impact of HIV/AIDS at the national level

The present section deals with the impact of HIV/AIDS on demographic indicators, as well as on the health and education sectors. It reveals that when considered at the national level, the epidemic so far has had no significant impact.

Estimates regarding the number of people who died of AIDS are consistently low. According to PNLIS (2001), the figure for 2000 is 5,000 whereas the cumulative figure since the outbreak of the epidemic evolves around 30,000. More than 90% of the people living with AIDS (80,000 nation-wide) are aged between 15 and 49 years (ONUSIDA, 2000a). A study carried out at the main infectious diseases clinic in Dakar showed that 25% of women infected with HIV were aged between 20 and 30 years, and 72% between 30 and 40 (Sow 1997). In the sample drawn for the purpose of the present research, 92% of HIV-cases are from the latter age group and the average age is 38 years. Given the relatively low numbers compared to a total population of over 9 million inhabitants, specific developments in key demographic indicators such as the structure of the population pyramid, life expectancy, or population growth can not be attributed to the number of AIDS deaths. On the contrary, life expectancy increased over the last 30 years. Similar conclusions can be drawn with regard to the under-five mortality rate, which fell from 300 for 1000 live births in 1960 to 147/1000 in 1990 and to 145/1000 in 1999, despite a slight increase

in recent years (see chapter 10 of the global study). The mortality of infants under one year dropped from 173/1000 in 1960 to 68/1000 in 1999 (UNICEF 2001).

Equally as a result of the low and stable HIV-prevalence rate and the concomitant low number of AIDS death, the nation-wide impact on the health and education sector has been negligible so far, in particular with regard to reduced numbers of teachers or health personnel as noted in other countries. In fact, both categories are not considered as risk-groups and as such are not included in regular epidemiological surveys, which explains the existing lack of data.

Since the mid-1980s, the period that coincides with the outbreak of the epidemic, the share of the Health Department in government budgets decreased, reaching its lowest point in 1994. Notwithstanding this, it should be noted that the Senegalese authorities promptly reacted when the disease broke out, by allocating substantial resources to the national AIDS Program. Thus, the annual public contribution went up from CFA 250,000,000 in 1986 to 600,000,000 in 2000.

In the education sector, the number of teachers steadily increased from 1998 to 2001, after it had relatively levelled out or even sometimes declined in the late 1980s and the early 1990s. The increase in education infrastructure and personnel went along with an upward trend of the gross enrolment rate for primary schools. Official statistics reveal that after having been relatively steady during the first half of the 90s (about 55%), the gross enrolment rate rose with an annual 10% between 1995 and 2000, to reach 70% by the year 2000 (UNICEF 2001). Notwithstanding this, important gaps remain between girls and boys, as well as between regions.

4. Impact at the household level

The following paragraphs attempt to demonstrate the impact on the social, human and physical capital for households affected by HIV/AIDS as compared to households not affected. Specific attention is given to household coping strategies (see also chapter 11 of this compilation of studies).

4.1 Impact on social capital

Structure and dynamics of HIV/AIDS-affected households

The analysis of medical records, put together in the framework of the present research, shows that in most cases, HIV-infected children live with a parent who has the same serological status. In fact,

- 96% of infected children have at least one HIV-infected parent (father and/or mother) ;
- 74% of infected children have at least one parent who died of AIDS (among these children, 59% lost their father, 29% their mother and 12% both parents) ;
- 11% have an HIV-infected brother or sister ;
- at the time the survey was conducted, 20% of HIV-infected children had a family member who was currently admitted to a hospital or hospitalised in the same year;

The results of the adult-centred questionnaire reveal that HIV-infection within a household typically occurs among more than one family member.

Table 5 : Presence of HIV-infection within households

People infected with or affected by HIV/AIDS, in families with at least one HIV/AIDS-infected person	%
HIV/AIDS-infected spouse	43%
HIV/AIDS-infected child	32%
Women with at least one husband who died of AIDS	28%
Men with at least one wife who died of AIDS	31%
Families with at least one AIDS orphan	22%

Source : adult-centred questionnaire

However, the data presented have to be interpreted as mere indications about the simultaneous presence of people infected with or affected by HIV/AIDS and living in the same household. In fact, the figures do not reflect the whole truth in so far as the serological status of family members is not always revealed. Often, when a man discovers that he is HIV positive, he does not take the initiative to have his wife (or his wives) and children tested as well. According to health agents, when a woman discovers that she is HIV-positive, her husband often refuses to be screened.

The poor awareness about the existence of HIV-cases within families, is due to the fact that HIV/AIDS is still considered a taboo. Very often, HIV-infected people strive hard to hide their serological status from members of their families. In some cases, a communication gap is purposely created. The case of a migrant who returned home is illustrative in this respect : « *When I came back from Central Africa, I was admitted to Fann hospital, where I was told that I had tuberculosis and AIDS ; when I came out of hospital, I talked about my tuberculosis to my wives, my brothers and my sisters, but I dared not talk about the AIDS disease. I kept it secret for months. During that period, I kept silent when faced with embarrassing questions, and I considerably reduced sexual intercourse with my wives, arguing that my tuberculosis didn't leave any room for such things* ».

While in these circumstances, children are obviously not receiving the care they need from their parents, the extent to which the communication gap between parents affects children's lives is difficult to assess. Undoubtedly, some children may feel as much distressed as adults may.

An analysis of children's drawings reinforces the impression that the presence of HIV/AIDS within a family, even though people will avoid talking about it, has an impact on the way in which children reconstruct the image of their families and social environment.

The 10-year old *Momo* has AIDS but nobody told him. His mother is also infected and his father died of AIDS two years ago. In *Momo's* drawing, his uncle, his aunt, and his cousins appear in the foreground. In the background he draws his father and mother. Is his mind so confused as to mistake the living for the dead, which leads him to place his father among the living, or did he put together all those whom he perceives as different from others ? It remains that he draws the people in the foreground in a more elaborate style, more carefully and with more detailed features... In a certain way, they seem more human. Unlike all the other children who pictured their families, *Momo* did not represent himself in his drawing. Perhaps he could not find his place between the two groups. When he was asked to draw his house, *Momo* painted

it in the form of a prison, with vertical and horizontal iron bars. He would not be the only child affected by AIDS to have given this kind of representation of his house. May the prison be considered as that « ambiguity » or that yoke to which they are subjected by the disease or the ignorance of the disease ? Or does it represent the isolation in which they and their families are kept ?

The image of the family in children's minds can considerably be affected, as reveals the following comments on an HIV-infected child's drawing :

Samba is a five-year old boy. When he was asked to draw his family, he first put his mother, then his sister, and finally himself. After that, he drew in the background another sister, then his father, whom he represented with squared features that are less human than the others. Having completed his drawing, he counted the people in the picture three times successively, before starting to draw his uncle, his brother and his half-sister. Thus, *Samba* has drawn himself on the same level as his mother and sister who both have AIDS. It appears that the disease is both a unifying and structuring factor. The persons represented in the background have more elaborate human features : they are not infected. The only exception is *Samba's* father who died of AIDS. The fact of drawing him in the background possibly indicates that, for the child, the memory of his father is still vivid. Finally, *Samba* finishes the drawing by encircling the family as to express his will to consider it as an intact unit. The mother is drawn very large and appears to be the most pre-eminent person in the picture.

In the context of Senegalese families, the mother's position is central when it comes to taking domestic responsibilities as regards disease ; she keeps that role even if she is diseased herself. When the mother is seriously ill, all the relatives gather together around her, her own sons and daughters in the first place. In polygamous households, children from different mothers feel less concerned than those from the same mother. In the case of a stigmatising disease, this *matricentrality* might aggravate tensions resulting from rivalry between individuals born of different mothers. As a consequence, one can rightfully argue that the stigmatisation of HIV/AIDS in the community is extended to family units. Moreover, a stigmatising disease like HIV/AIDS is regarded as something that rebounds on the social status of the family, and on the image the community has constructed of it, to the extent that the diseased person is blamed by his own relatives for being responsible for the "decline" of the family or the matricentral unit's status.

Table 6 : % of families in charge of people not belonging to the nuclear family unit

People living in the family but not belonging to the nuclear family unit	Families with at least one HIV/AIDS- infected person	Families without any HIV/AIDS-infected person
Brothers and sisters	29%	41%
Nephews and nieces	24%	47%
Sisters and brothers-in law	17%	19%
Grand-children	11%	21%
Orphans	6%	15%

Sources: Data from the adult-centred questionnaire

Matrimonial status and instability of family units

The survey data show that families without any HIV/AIDS-infected member more often than not live together with people who do not belong exclusively to the nuclear

family unit (composed of spouses and children). The following table shows that the presence of members of the extended family is much more common among non HIV/AIDS-affected households.

The table first of all confirms the importance of domestic units that include members of the extended family such as nephews and nieces or brothers and sisters of the head of household or his wife. It further shows the extent to which this practice has come under pressure when HIV/AIDS-affected households are concerned. The comments by a key-informant provide insight into the background of the decisions not to entrust one's children to particular families : “ *it is not advisable to entrust children to a poor or diseased person; this would add to that person's troubles and would not provide the child with the ease and comfort he needs to construct his future* ”.

The matrimonial status of households included in the survey is presented in the following table.

Table 7 : Breakdown of matrimonial status of people living with HIV/AIDS

Matrimonial status	Men living with HIV/AIDS	Women living with HIV/AIDS
Married	75.8%	28.6%
Single	21.2%	22.4%
Divorced	3%	22.4%
Widow		22.4%
Other		4.1%

Source : Data from the adult-centred questionnaire

It straightforwardly appears from the figures that a substantially higher percentage of women living with HIV/AIDS are divorced or widow. Concomitantly, the share of married men who live with the disease is higher than among women. This situation can be attributed to the fact that when their partner dies, men get remarried quite rapidly or do not consider themselves as widowers when they are polygamists, because at least one of their wives always outlive one or several co-wives.

Several studies have shown that while risky sexual behaviour and HIV-infection among men is not necessarily linked to their marital status, sexual instability associated to long celibacy, to divorce and to widowhood, is thought to be a leading factor that favours HIV infections among women. But it can also be considered a result of those infections. In general, compared to men, the marriage of divorcees or widows proves much more difficult above a certain age, and this is likely to be aggravated when a woman is known to be HIV-positive.

In specific cultural contexts such as in northern Senegal – a region characterised by substantial outward migration -, widows and divorcees used to be coveted for marriage. A migrant's widow was and to a certain extent still is regarded as an excellent match because of her wealth and prestige. Divorced women also appeal to men because of the assumed maturity they have gained from previous marriages. However, it was reported that widows of migrants now have increasing difficulties in getting remarried because their former husbands are more and more under serious suspicions of being HIV-infected.

Divorce, widowhood or celibacy can of course considerably affect children, through a lack of emotional support, or as a consequence of economic hardship. The latter

situation was found in particular among single women. In addition, it appeared that precarious situations as a result of HIV/AIDS infection induced considerable instability in the lives of children. Results show that compared with non-affected families, HIV/AIDS-affected families have more children who are living elsewhere. Almost one third of HIV/AIDS-affected families have at least one child (0 to 15 years) living with other relatives, whereas this figure is about 20% for non-affected families.

This phenomenon becomes clearer when analysed over a longer period (cf. table 8). It appears as well that between 1997 and 2001, an increase occurred with respect to the number of children that took the initiative themselves to spend some time with outside the household of their parents. This phenomenon only rarely occurred in non-affected families.

Table 8 : % of children moving into other households (1997-2001)

Family declarations	1997	1998	1999	2000	2001
Has had at least one child who lives with other relatives	10%	12%	12%	15%	16%
Has had at least one child who took the initiative to live with another relative	2%	5%	7%	9%	10%

Sources : Data from the adult-centred questionnaire

The movements of children, which follow the death of one of their parents or the disruption of marriage, are intimately related to complex social and cultural practices. When the father dies, for instance, tradition implies that the widow will automatically marry his younger brother (phenomenon called *lévirat*) and the children will consequently move to another location. When the mother dies, her own sister would traditionally replace her in the household (phenomenon called *sororat*), but informants affirmed that this phenomenon is progressively losing importance in the areas covered by our survey. However, even if *sororat* is not applied, the widower will typically seek another wife without much delay, and as a result, the children of the deceased wife will usually leave their father's house. Their mother's sisters may then bring up those children. In other cases, it was noted that grandmothers or aunts substituted for the parents. The data reveal that AIDS orphans who lost both parents are adopted in most cases by their grandmothers, the latter being the children's closest relatives.

Throughout the sampled households affected by HIV/AIDS, a gradual reduction of the number of people involved in solidarity networks was observed (cf. sections below). The responsibility for AIDS orphans, for instance, appeared to come down to a limited number of family members only. Moreover, the most substantial support appeared to be provided by projects, associations or NGOs fighting against HIV/AIDS. According to our data, 13% of children with HIV/AIDS benefited from some type of NGO assistance. The majority of those children live in Tambacounda, Saint-Louis and Dakar, where a dynamic NGO environment in the area of HIV/AIDS exists. The data further show that about 20% of children with HIV/AIDS (most of them living in Dakar, Kaolack and Tambacounda) have at least had one parent who benefited from an income-generating program that was meant for people living with HIV/AIDS.

In conclusion, after a parent's death, children were found likely to have enormous difficulties to accommodate themselves to the new family or matrimonial arrangements they found themselves in. It was often stressed by key-informants that the unstable situations described above made children feel marginal, not valued and confronted to new and difficult challenges, a situation which, in turn, is aggravated by intra-household communication or affection deficits already mentioned above. In fact, the compassion expressed by others was said to be often only temporary.

Social networks

The analysis of the adult-centred questionnaire highlights many ways in which interpersonal relationships and social networks are adversely affected by the presence of HIV/AIDS within families. It was already demonstrated above that the death of a head of family usually results in the dispersal of family members (wives and children) who move into other, possibly separate, domestic units. Yet, it will be outlined hereafter that not only the occurrence of an AIDS death but already the presence of HIV may cause a process of family reconstruction, involving both parents and children.

A second feature that indicates the relative decline of social networks relates to the practice of sharing meals together. Particularly in traditional and rural family situations, meals are shared not only between household members but people who don't live in the same compound participate as well. This practice is typically considered as a sign of wealth or social prestige, and contributes significantly to the construction and maintenance of social networks. Yet, if the financial resources of a family are under pressure as a result of the structural presence of disease, the number of people who eat together may decrease. In addition to the element of stigmatisation that already accompanies families living with HIV/AIDS, the obligation to reduce the number of people with whom a meal is shared is likely to contribute to a relative social isolation of the family concerned and to a decline of its social prestige. In turn, this is likely to influence the support-base an affected family relies upon.

The following table shows that HIV/AIDS-affected families, on average, share their different meals with fewer people compared with non-affected families.

Table 9 : Average number of people who share the same meals

Meals	Families with at least one person with HIV/AIDS	Families unaffected by HIV/AIDS
Breakfast	6.42	7.89
Lunch	6.89	7.34
Dinner	8.02	8.11

Source : Data from the adult-centred questionnaire

People with whom meals are shared, people who live in the same compound or people with whom a family-type of relationship exists, form the core group of the solidarity network that provides moral support, material assistance and health care to people who live with a disease. The brother of a migrant who died of AIDS illustrates this : “ *when AIDS laid him low, it were his roommates with whom he shared meals who helped him return to Senegal. When he came home, his elder brother and his own wife took him to Ourosogui hospital and after that to Saint-Louis before he was finally admitted to Fann hospital in Dakar. He stayed there for 45 days and when he felt a*

little better, he was taken back to Ourossoqui where his condition worsened again. He died shortly after. During all this time, his wife and brother stayed with him, striving hard to find him money. His wife visited many places (Aynoumady, Mongo, Louguere Thioly, Bakel) to see marabouts. She would bring talismans and gris-gris from those traditional healers ”.

During those travels, wives are often accompanied by other women (a sister, a cousin or close friend) or by their own daughters. Besides, daughters, irrespective of their age, are involved in tasks such as bringing meals to the diseased and carrying out domestic activities which would have typically been attributed to the mother (cooking meals, taking care of children, cleaning the house, etc.). In this way, the father's disease results in an increase of stress for young girls, which, if they are enrolled, was found to be a serious impediment to their studies, and a possible cause of school dropout. When the mother herself is diseased, the situation worsens because her daughters will have to take care of her. Finally, in situations where the mother cares for a diseased child, the burden of her domestic chores is borne by her daughters or by other girls who live in the same compound.

The results of the survey show that just after the revelation of HIV-infection or the occurrence of disease symptoms, families substantially benefit from assistance provided by relatives, friends or neighbours, but that resource mobilisation consistently declines over time. Moral support appeared difficult to maintain as well. At the beginning of illness people show their sympathy for, and provide assistance to the patient, but if that support is to be renewed for an unlimited length of time, the solidarity network soon runs out of steam.

Among other things, this is illustrated by the observation that, rather paradoxically, families unaffected by HIV/AIDS receive, in case of a health problem, more assistance to meet additional expenses than do families affected by HIV/AIDS. With regard to the type of assistance received, it was noted that HIV/AIDS patients rely much more on health structures, on organisations that assist people living with HIV/AIDS, on *marabouts* or on the inner-circle of family members. In contrast, for people unaffected by HIV/AIDS, assistance is more likely to be provided by parents, relatives, neighbours and friends. The gap widens when data about women are examined.

However, even though solidarity networks tend to tighten as HIV/AIDS continues more and more structurally to place a burden on families (which is one of its characteristics), when the patient dies resource mobilisation starts anew, with the widening of the circle of community members involved in providing assistance. A new dynamics is thus triggered off for the organisation of funerals, which generally gather many people, as is illustrated by the following story : *“We had wished, my brothers and I, to be as simple as possible in the organisation of the funeral. The deceased person and his intimate friends and family had already suffered much from the disease, and undergone many frustrations. But because of the crowd of people who came for condolences, we had to slaughter a bull and many relatives and visitors stayed in the house for more than 10 days.”*

Beside the fact that funeral impoverish families, they tremendously disturb children's lives as well. The latter are the first to sleep on the floor and leave their beds to

visitors if they are not sent to neighbouring homes for long sleepless nights. Few people take the trouble to look after children on such occasions, and they are overwhelmed with domestic duties, which likely affect their school results.

4.2 Impact on human capital

The impact of HIV/AIDS on human resources has been analysed through indicators related to health care, education and nutrition.

Health care

The analysis of the impact on health care was essentially based on the examination of medical expenses : consultations, biomedical screening and hospital admissions (see also chapter 13 of the global study). As might have been expected, the number of people with HIV/AIDS who have been consulted in a health centre the three months preceding the survey is higher than the number of non infected people.

Table 10 : HIV/AIDS and health care indicators

Health care indicators	Adults with HIV/AIDS	Adults without HIV/AIDS
At least one consultation in the last 3 or 6 months	89%	69%
Average number of consultations in the last 3 months	3	1
Average consultation costs in the last 3 months	8,085 FCFA	3,458 FCFA

Source : Data from adult-centred questionnaire

On average, adults with HIV/AIDS pay almost twice the amount for consultations than those without HIV/AIDS, although in localities like Saint-Louis, HIV/AIDS patients do not pay consultation costs in public hospitals.

The number of adults with HIV/AIDS who have ever been admitted to a hospital is greater as well : 32%, while the percentage for non-infected adults amounts to 10%. Finally, people living with HIV/AIDS spend substantially more on consultations (cf. table 10) but also on the purchase of medical drugs over the last three months preceding the survey : 15, 000 CFA francs against 8,800 CFA francs on average. As for children, their health care expenses traditionally fell under their father's responsibility, but on a day-to-day basis it is usually the mother who will endeavour to find the necessary amount of money, as she is taking care of the patient in many respects.

If we consider the use of traditional medicine, we notice that there is no significant difference in the percentage of people who have consulted a *marabout* or a traditional healer over the last 3 months preceding the survey. Yet, from the analyses of expenses related to these visits, it appears that people with HIV/AIDS spend significantly larger amounts. The number of people with HIV/AIDS who invited a healer or a *marabout* at home to get themselves or their family members treated is greater as well. Travel expenses to visit healers or *marabouts* places are much heavier for infected people as well, which indicates the various efforts made to get consultations in this sector.

Table 11 : HIV/AIDS and consultations with *marabouts* or traditional healers

Indicators	Adults with HIV/AIDS	Adults without HIV/AIDS
Consulted a <i>marabout</i> or a healer in the last 3 months	42,5%	45,5%
Average consultation costs	23,713 FCFA	3,304 FCFA
Average for other expenses (purchase of drugs or sacrifices)	30,880 FCFA	8,511 FCFA
Average amount of gifts	23,713 FCFA	3,304 FCFA
Provided in-house lodging to a <i>marabout</i> or a healer	14%	4%
Average amount of money spent on transport to visit a healer or a <i>marabout</i>	6,309 FCFA	2,595 FCFA

Source : Data from adult-centred questionnaire

The following extract from a case study describes the circumstances in which the above-mentioned expenses are contracted. An informant from Saint-Louis tells about his brother who died of AIDS :

« The first marabout my brother consulted lived in Ndioum. He didn't evoke that he was HIV-positive but only explained to the marabout his situation and the tuberculosis he was suffering from, mainly because he didn't want his wife, who was with him, to know that he had AIDS. The marabout requested FCFA 40,000 and promised recovery. But my brother gave him only FCFA 20,000 and said he would give the other half after a 3-month treatment. The three months elapsed without any improvement. In October 1999, my brother heard about another marabout and went to see him. The latter told him that he was the victim of an evil spirit and that he should promptly react if he wanted to save his life. He asked FCFA 4 875, a white ram, a white cock, 25 red kola nuts, 25 white kola nuts and 25 candles ».

The consultation of *marabouts* and traditional healers seems to be connected with a specific conception of AIDS. In fact, when people with HIV/AIDS or their family members talk to *marabouts* or healers, they never mention AIDS, but talk about another disease with similar symptoms. Interestingly, a relationship is sometimes established with disease symptoms among migrant returnees. In this respect, a *marabout* from Ourosogui states that *« we do not cure AIDS because it is incurable and the patient inevitably has to die...AIDS patients are people who committed deadly sins. However, we do cure a disease, which has infected migrants who have stayed in Côte d'Ivoire, Gabon and Zambia. This disease is called Jokao or Ñaw funange. Its symptoms are the progressive loss of weight, diarrhoea, vomiting, hot flushes, fever and often itchiness or tumours on the back ; we are the only ones who can heal that disease, no hospital can ».*

Education

The survey results show that 40% of children with HIV/AIDS were of school age, and that among this group 89% were actually attending formal education at public or private schools, with the remaining attending Koranic schools. According to social workers we interviewed, Koranic schools are generally considered substitutes for public education for children with HIV/AIDS. They suggest that parents hesitate to send their children to public schools because they think he/she will be obliged to abandon soon, or won't have a rewarding job anyway. Attending a Koranic school is a way of getting closer to God. As such, it is likely that the percentage of HIV/AIDS-

infected children that attend formal education will be lower in the general population compared to the relatively high figure (89%) found in the present survey.

In addition to negatively affecting public school enrolment, HIV/AIDS appeared, not surprisingly; to have an impact on school results. Children frequently miss classes and as a consequence tend to repeat classes. Of the children included in the survey, many were still at primary level even though they had already largely exceeded the age of 12.

With respect to the children whose parents are infected by HIV/AIDS, and for the school year 1999-2000, 6% of adults living with HIV/AIDS declared that their disease had resulted in at least one of their children being dismissed from school. According to parents, in addition to the frequent missing of classes (due to children's involvement in domestic duties as they replace a mother or a father admitted to hospital), dismissals and poor school results are due to difficulties in paying school registration fees, in buying school stationery, and to the failure to look after their children's education.

Table 12 : Impact of HIV/AIDS infection among parents on children's school results

Type of difficulty	95-97	97-98	98-99	99-00	00-01
Child had to miss classes	1.2%	1.2%	3.7%	4.9%	4.9%
Parents had difficulties to buy school stationary	4.9%	12.2%	12.2%	13.4%	13.4%
Parents had difficulties to pay school enrolment fees	3.7%	8.5%	8.5%	9.8%	7.3%
Parents stopped paying private tuition fees	2.4%	3.7%	3.7%	3.7%	6.1%
Parents had difficulties to pay transport to school	1.2%	2.4%	2.4%	3.7%	3.7%

Source : Data from the children-centred questionnaire

Nutrition

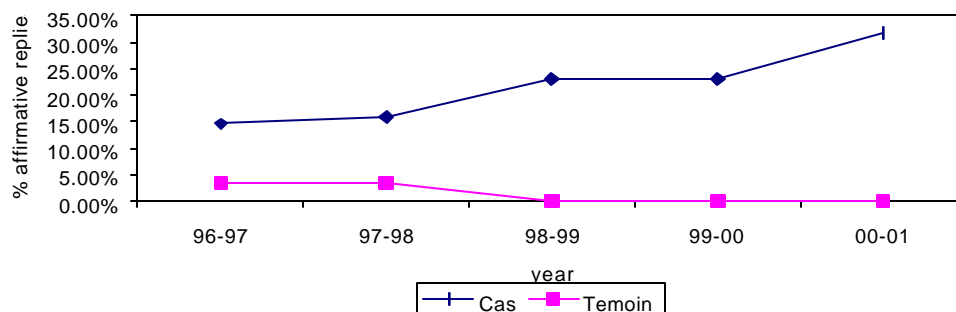
The analysis of the impact of HIV/AIDS on the household nutrition situation mainly concerns variables referring to the diversity of food, its quantity and the difficulties in meeting food expenses.

With respect to local representations of food and eating patterns, certain practices are considered as representing poor nutrition and beyond that as reflecting a lack of financial resources. For instance, this is the case when part of the lunch is kept and consequently heated up and served as dinner. Traditionally, meals served for lunch and dinner are qualitatively different (for instance rice for lunch and millet or another dish eaten with bread at night). The practice of reducing food diversity appeared to be more frequent among HIV/AIDS-affected households, for whom the percentage increased from 15 to 32% from 1996 to 2001. On the contrary, among non-affected households the same percentage reveals a relatively low and stable pattern over the same period.

The practice of serving part of the lunch at night does not only represent a reduced diet diversity or a decline in food expenses, it also suggests that the quantity of food eaten by adults or older children decreases ; very often, the remains of midday meals are kept for younger children. In fact, the percentage of people who acknowledge that the quantity of food served has decreased is substantially higher among HIV/AIDS-affected households : it rose from 11% in 1996 to 32 % in 2000-2001, whereas the percentage remains low and stable for non-affected households. A quantitative reduction in nutrition often means that the family breakfast is suppressed or reduced to its simplest expression (and might be reserved only for youngest children), that dinner is not served every day, or that sometimes lunch is not cooked or very late, because the mother had to find assistance in order to be able to purchase the food. The

effects of similar situations on the social prestige of the family and the concomitant difficulties in maintaining social networks were already dealt with above, in relation to the practice of sharing meals.

Graph 1 : % of households that affirmed having reduced diet diversity over the last 5 years



Caption : Cas = people with AIDS, Témoin (control subjects) : people without AIDS

Source : Data from the adults-centred questionnaire

Children are likely to suffer from the above-described coping strategies that result from a reduced quality and quantity of nutrition at household level. For instance, the percentage of HIV/AIDS-affected adults who affirmed that their children don't have breakfast every day, evolved between 15% and 20% over the 1996-2001 period. On the contrary, the percentage for non-affected people has been almost steady over the last years and does not exceed 2.2%.

The survey results further illustrate that HIV/AIDS-affected households have difficulties in meeting daily food expenses. Over the period 2002-2001, almost one third of respondents in this category declared that at least occasionally the purchase of food items was problematic. Furthermore, even though it was difficult to get a detailed and systematic overview of household budgets, the data indicate that the average amount of household expenses is noticeably lower in families with at least one HIV/AIDS-infected person, compared with families without, while both types of families included in the survey have comparable sizes and are both headed by adults with to a large extent similar professional activities. The most significant disparities concern foodstuffs that are bought on a daily basis.

The majority of the above-mentioned indicators reveal downward trends over the years, which can be interpreted as a gradual worsening of living conditions for families affected by HIV/AIDS.

Physical capital

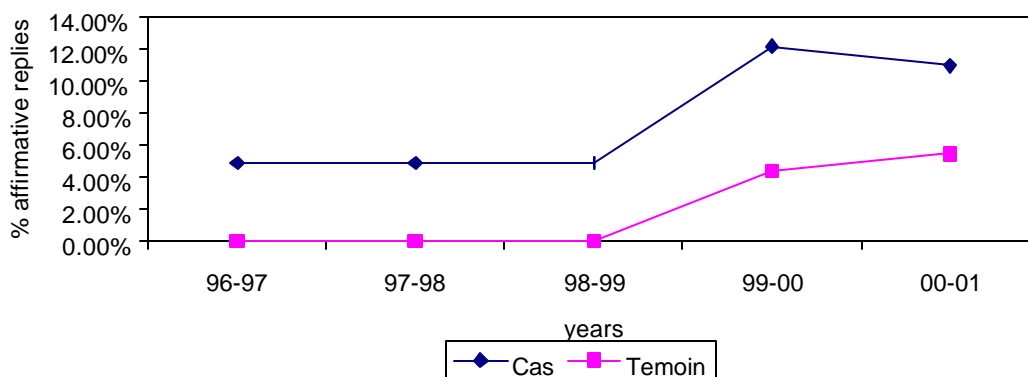
The impact of HIV/AIDS on the physical capital of families concerned has been examined through an analysis of the role of domestic savings and the availability of material property. The survey results reveal that domestic savings are used to satisfy health care expenses. Notably in rural areas, domestic savings are typically represented by investments in livestock. The sale of livestock to satisfy an immediate cash-need for the purchase of food, or to meet health expenses generally occurs in case of emergency only, when no other options are available. The possession of livestock, especially cattle, being intimately linked to social prestige and the

livelihood strategies of their owners, its sale is commonly seen as an action of last resort. Whereas livestock sales among non-affected households did seldom occur, HIV/AIDS-affected households occasionally had to sell some in order to provide for enough cash to meet substantial health care expenses. In this regard, the sale of sheep and goats were more frequent than the sale of cattle. With respect to urban areas, a significant number of HIV/AIDS-affected people had to resort to borrowing money or to withdrawing savings from their bank account.

Another crucial indicator with regard to the impact on physical capital, is the access to basic social services such as water and electricity. Both can be considered as having a direct impact on the household's living conditions and on the environment in which children evolve.

The questionnaire data indicate a progressive increase in the number of power cuts as a result of non-paid electricity bills among HIV/AIDS-affected households. While 4.5% of this group affirmed having had power cuts for non-payment of bills in 1996-1997, the figure had risen to 12.6% in 1999-2000 and 11% in 2000-2001. Over the same period, the percentage among non-affected households increased from zero to 5.5%. In popular representation, power cuts are one of the more visible indicators of the degradation of a family's financial possibilities. Indeed, they are likely to affect the child's welfare. Power cuts not only result in children's feeling of discomfort and shame in front of their school mates, but also create precarious conditions for studying at home, because they have to read with candlelight or simply give up their homework. Obviously, these findings are particularly valid in urban electrified environments where isolated power cuts are clearly visible.

Graph 2 : % of people that affirm having had power cuts as a result of non-payment of electricity bills



Caption : Cas = people with AIDS, Témoins (control subjects) : people without AIDS

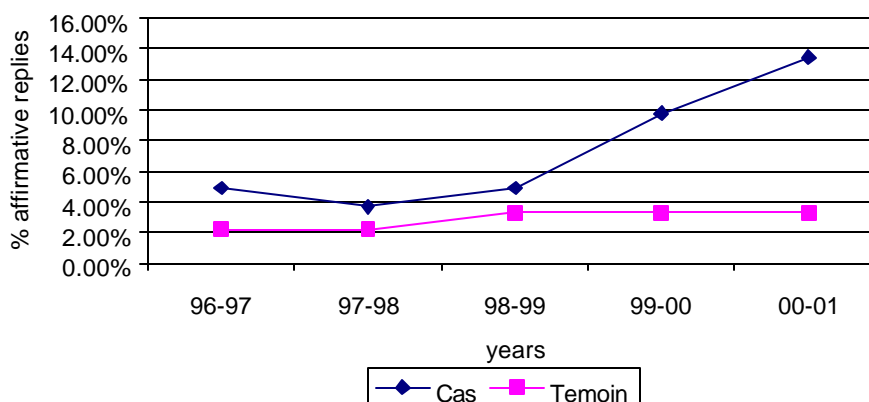
Source : Data from the adults-centred questionnaire

A similar situation was found in examining the fact of experiencing cuts in water supply as a result of non paid bills.

Graph 3 shows that for HIV/AIDS-affected households, water cuts have become more and more frequent since 1998-1999, reaching almost 14% in 2000. For non-affected households, the percentage ranges between 3% and 5%. In addition to the discomfort for children, water cuts tend to increase their workload, since they are typically in

charge of fetching water in neighbouring houses or at public fountains. This particularly applies to young girls.

Graph 3 : % of people that affirm having had water cuts as a result of non-payment of bills



Caption : Cas = People with HIV/AIDS, Témoin = Control subjects : People without HIV

Source : Data from the adults-centred questionnaire

4.3 Impacts at the individual level

HIV/AIDS has an important psychological impact on infected people. This is illustrated by several of the indicators used in the questionnaire, which, among other things, reveal that more than half of HIV-positive adults acknowledge frequently feeling uncomfortable. This sentiment is usually accompanied by a melancholic mood among 60% of this group. Respective figures for non-infected people were 10% and 19.8%. Together with a depressive mood, the physical symptoms of having HIV/AIDS cause more than half of the patients to remain in bed for hours.

Finally, HIV/AIDS-infected people frequently have the impression being ruined and having lost much of their property because of the disease. Yet, comparatively few divorces linked to HIV/AIDS were recorded. It seems that divorce under such circumstances would be seen as a transgression of the moral principles that lay the foundations of marriage, which is ultimately considered as the fulfilment of God's will.

The general psychological mood of many people living with AIDS is summed up by the following passages taken a life-history drawn up in Ourosogui : « *When I was told I was HIV-positive, often my body was not liberated (a expression suggesting melancholy and depression), I often stayed in bed, I rarely went outdoors for my usual errands ; I finally thought I was good for nothing ; I was overwhelmed by feelings of failure and guilt, I did not work because I entrusted my little shop to one of my brothers who was managing it well* ». Similar cases confirm that the emotional shock resulting from the discovery of being HIV-positive can lead to instability in one's professional and social activities.

Table 13: HIV/AIDS psychological impacts on adults

The impact of HIV/AIDS	People living with HIV/AIDS	People not living with HIV/AIDS
Often feels uncomfortable	51.2%	12.1%
Is often in a melancholy mood	58.5%	19.8%
Stays in bed for hours	46.3%	16.5%
Is broke	47.6%	19.8%
Lost his property	40.2%	11.8%
Decided to stop having children	29.3%	2.2%
Relatives and friends avoid meeting him	14.6%	1.1%
Stopped entertaining himself/ herself	32.9%	11%
Travelled for treatment	18.3%	3.3%
Was divorced	4.9%	2.2%
Was abandoned by husband/wife	4.9%	3.3%

Source : Data from the adult-centred questionnaire

Children can be highly affected by adults' social and emotional instability, especially those children who live with HIV/AIDS. In the drawing of an HIV/AIDS-infected boy whose father has AIDS as well, the latter occupies a tiny space in the background. According to psychologists, this means that while physically present, the father tends to disappear from the child's imagination. They explain that children who live in similar situations are often faced with problems of identifying with people who live in their immediate environment.

Occasionally, children sense the fact they live with HIV/AIDS, even if nobody told them so. The analysis of children's drawings by psychologists confirmed this feeling.

Samba- who ignores the fact he is living with AIDS - represents himself without his upper limbs. It was as if he felt he was maimed. It probably doesn't mean Samba is unable to draw his limbs accurately. In all likelihood, he didn't accidentally forget them either. He just wanted to express that something was missing in him. He also drew his sister and mother who are both HIV-positive on the same level without caring about their features. Yet, the other family members without AIDS are drawn with distinct features.

The feeling of discomfort among HIV-infected children comes clearly to the fore through the examination of indicators revealed by the child-centred questionnaire. In 35% of all cases, parents of children with HIV/AIDS recognise that many friends abandoned their children while the same phenomenon was mentioned by none of the parents of children living without HIV/AIDS. Parents also stated that children play less because their friends reject them. They were also frustrated by the lack of other forms of socialisation, which would have allowed them to momentarily escape the family environment.

Table 14 : Impact of HIV/AIDS on child socialisation situations

Characteristics	Children with HIV	Children without HIV
Stopped playing	33%	18%
Is often in bed	50%	36%
Is abandoned by his friends	35%	-
Lost his appetite	60%	29%
No longer goes on holidays	65%	14%

Source : Data from the children-centred questionnaire

On the other hand, no systematic discrimination of children was observed in schools or on other locations at which children socialise. An informant from Tambacounda explains : « *In most cases, neither the teacher nor the students know that there is an AIDS patient in the classroom. When the latter misses classes for health reasons, they just say he/she is sickly, without envisaging the possibility that the pupil has AIDS. If ever the teacher knows that one of his pupil suffers from AIDS, he tries hard to keep it secret.* » Often, the fact of not revealing the disease in school is related to not revealing the disease at home. It may happen that family members are the last to know that one of their relatives is HIV-positive. Thus, conflicts may arise from strategies developed within families to conceal the disease, and these in turn are likely to have considerable emotional impact.

5. Conclusions

The analysis of a variety of indicators related to the periods before and after the occurrence of HIV/AIDS in Senegal (mid-1980s) did not allow to assess its nationwide impact in general, and in the sectors of health, education, demography and economy in particular. This can be undoubtedly attributed to the relatively low and stable rate of HIV-prevalence and to the concomitant low number of people who died as a result of AIDS. It was outlined briefly that these favourable figures are generally attributed to a complex set of social and behavioural factors, complemented by a successful policy to fight against the spread of the disease. The main features of this adequate policy consist of a timely response, an eagerness to anticipate on new developments, the strategic involvement of religious and political leaders, effective STD-control programmes, and the construction of strong responses at the community level.

However, the study identified a clear impact of HIV/AIDS at the family and individual levels. The analysis further made clear that in several respects the impact of HIV/AIDS could be related to the specificity of this disease.

At the family level, it was observed that the serological status of individual members is rarely known. The taboo that characterises the disease continues to influence this, and was found to be strongly related to the stigmatisation it was likely to provoke when the serological status of individuals would be known. The risk of stigmatisation appeared to exist at the level of communities but also within families – in particular in the case of a polygamous family.

For HIV/AIDS-infected families, health care expenses constitute a heavy burden, notably expenses related to the treatment of opportunistic infections and those related to consulting *marabouts* and traditional medicine. The presence of HIV/AIDS in families entails a variety of forms of instability and thus contribute to unstable and progressively degrading living conditions for children, girls in particular. In addition, the disease was found to explain several forms of matrimonial instability as well as the decline of social networks over time. This obviously worsens once more the living conditions of children. Finally, HIV/AIDS appeared to have a strong impact on self-perception, emotional stability and the construction of individual and family identities, among adults as well as among children.

The results of the present study suggest that if the programmes which aim to reduce the presence and impact of HIV/AIDS were to be strengthened, these should come to

CHAPTER 4: THE SOCIO-ECONOMIC IMPACT OF HIV/AIDS ON CHILDREN IN A
LOW PREVALENCE CONTEXT: THE CASE OF SENEGAL

include specific components that focus on children and families that are vulnerable to HIV-infection, notably in the field of communication on HIV/AIDS. These programmes would not be limited to prevention efforts but should cover care for the infected as well.

References

“The Spread of HIV1 in Africa : Sexual Contact Pattern and the Predicted Demographic Impact of AIDS” in *Nature*, Vol. 352.

Baier, E.G. (2000) *De l'impact du VIH/SIDA sur les familles / communautés rurales et de la nécessité de concevoir des stratégies multisectorielles en vue de prévenir la pandémie et d'en atténuer les effets dans les zones rurales*, FAO, Rome

Banque Mondiale (1992) *Rapport sur le développement dans le monde : le développement et l'environnement, indicateur du développement dans le monde*, Banque mondiale, Washington DC.

Banque Mondiale (1993) *Rapport sur le développement dans le monde. Investir dans la santé, indicateur du développement dans le monde*, Banque mondiale, Washington DC

Banque Mondiale (2000) *Rapport annuel 1999*, Banque Mondiale, Washington DC

Banque Mondiale (2001) *Rapport sur le développement dans le monde; combattre la pauvreté*, Banque mondiale, Washington DC

Bollinger, L., Stover, J., and Diop, I. (1999), *The Economic Impact of AIDS in Senegal*, The Futures Group International, Glastonbury

Botchwey, K. (2000) *HIV/SIDA and Economic Development in Sub-Saharan Africa*, African Development Forum 2000, Addis Ababa

Bulletin Epidémiologique HIV (1993) “Groupe de surveillance séro épidémiologique Comité National de Prévention du SIDA” in *Bulletin Epidémiologique HIV*; vol. 4

Bulletin Epidémiologique HIV (1994) “Groupe de surveillance séro épidémiologique Comité National de Prévention du SIDA” in *Bulletin Epidémiologique HIV*; vol.5

Bulletin Epidémiologique HIV (1997) Groupe de surveillance séro épidémiologique Comité National de Prévention du SIDA in *Bulletin Epidémiologique HIV*; vol. 6

Bulletin Epidémiologique HIV (1999) Groupe de surveillance séro épidémiologique Comité National de Prévention du SIDA in *Bulletin Epidémiologique HIV*; vol.7

Bulletin Epidémiologique HIV (2000) Groupe de surveillance séro épidémiologique Comité National de Prévention du SIDA in *Bulletin Epidémiologique HIV*; vol.8

Charbit, Y., Gueye, L. and Ndiaye, S. (1985) *Nuptialité et Fécondité au Sénégal*, PUF, Travaux et Documents, Cahier No. 112, Paris

Cohen, D. (1992) *The Economic Impact of the HIV Epidemic Issues*, UNDP, New York

- Etchepare, C., and Etchepare, M. (1998), *SIDA en Afrique: analyse par pays*, Enda-Editions, Dakar
- Groupe Thematique ONUSIDA/SENEGAL (2001) *Lutte contre le SIDA, Meilleures Pratiques, L'expérience sénégalaise*, ONUSIDA, Dakar
- Kane, F. et al. (1993) "Temporary Expatriation is Related to HIV-1 Infection in Rural Senegal" in *AIDS*, vol. 7(9), pp. 1261-1265
- Le Guenno, B. et al.. (1992) "HIV 2 Prevalence in Three Rural Regions of Senegal: Low Levels and Heterogeneous Distribution" in *Transactions of the Royal Society of Tropical Medicine and Hygiene*, vol. 86, pp. 301-302
- Mboup, S. (1996) "Mise en évidence d'une immunité croisée HIV1, HIV2" in *Le journal du SIDA*, numéro spécial Afrique, 117-118 juin - juillet 1996.
- Mboup, S. et al. (1990), *Emergence of HIV1 in a High Risk Group from an HIV2 Endemic Area, Senegal*, paper presented at the 6th International Conference on AIDS, San Francisco
- Mboup, S., et al. (1988) *HIV and later viruses in Senegal* , Poster presented at the IV International Conference on AIDS, Stockholm
- Meda, N. et al. (1998) "Low and Stable HIV Infection Rates in Senegal: Natural Course of the Epidemic or Evidence for Success of Prevention?" in *AIDS*, vol. 13, pp. 1397-1405
- Ministère de l'Economie et des Finances et du Plan – Direction de la Prevision et de la Statistique (2000) *Situation économique et sociale du Sénégal, Edition 1999*, Ministère de l'Economie, Dakar
- Ministère de la Santé Publique et de l'Action Sociale(1997) *Plan National de développement Sanitaire et Social*, Ministère de la Santé Publique et de l'Action Sociale, Dakar.
- Moser, C., and Shrader, E. (1999) *A Conceptual Framework for Violence Reduction*, LCR Sustainable development Working Paper, No.2, World Bank, Washington DC
- Ndiaye, S., Ayad, M., and Gaye, A., (1997) *Enquête démographique et de Santé au Sénégal (EDS-III)*, République du Sénégal, Ministère de l'Economie, des Finances et du Plan, Direction de la Prévision et de la Statistique, Division des Statistiques Démographiques, Dakar, Sénégal ; Macro International inc. Calverton
- Ndiaye, S., Diouf, P. D., and Ayad, M., (1994) *Enquête démographique et de Santé au Sénégal (EDS-II)*, République du Sénégal, Ministère de l'Economie, des Finances et du Plan, Direction de la Prévision et de la Statistique, Division des Statistiques Démographiques, Dakar, Sénégal ; Macro International inc. Calverton

Niang, I.C. et al. (2001) *Collecte d'information pour la prévention des IST et du VIH/SIDA chez les hommes ayant des relations sexuelles avec d'autres hommes à Dakar*, ISE, Dakar.

ONUSIDA and OMS (2000) *Rapport sur l'épidémie mondiale de VIH/SIDA*, ONUSIDA, Geneva.

ONUSIDA and OMS (2000a) *Sénégal: Fiche épidémiologique sur le VIH/SIDA et les infections sexuellement transmises*, ONUSIDA, Geneva

ONUSIDA and OMS (2000b) *Agir vite pour prévenir le SIDA : le cas du Sénégal. Collection meilleures pratiques*, ONUSIDA, Geneva

Over, M. (1992), *The Macroeconomic Impact of AIDS in Sub-Saharan Africa*, World Bank Health and Nutrition Division (AFTPN Technical Working Paper 3), Washington D.C.

Pillsbury, B. (1991) *Senegal Health and Population Sector Assessment*, Population Technical Assistance Project, DUAL and Associates, Inc. and International Sciences and Technology Institute, Inc.

PNLS (2001) *Plan stratégique 2002-2006*, Ministère de la Santé / PNLS, Dakar

République du Senegal (2001) *Document de stratégie de réduction de la pauvreté*, draft, Dakar

République du Senegal, Ministère de la Femme de l'enfant et de la famille (1996) *Plan d'action de la femme 1997-2001*, Ministère de la Femme, de l'Enfant et de la Famille, Dakar.

Sankale, J.L. et al, (1989) *Expérience de l'utilisation de tests rapides dans une enquête épidémiologique au Sénégal*; paper presented at the 5th International Conference on AIDS and Associated Cancers, Marseille (Abstract no.132)

Sow, P. et al. (1997) *Aspects épidémiologiques de l'infection rétro virale à VIH à partir d'une population malade de Dakar*, paper presented at the 7th International Conference on AIDS in Africa, MOP54.

Thiam, D., et al. (1990) *Prévalence de l'infection VIH au sein de la population des donneurs de sang dans la région de Dakar*; poster presented at the 5th International Conference on AIDS in Africa, Kinshasa - Zaïre (poster TPE 9)

UNICEF (2000) *The State of the World's Children 2001*, UNICEF, New York

UNICEF, and UNAIDS (1999), *Children Orphaned by AIDS: Front-line Responses from Eastern and Southern Africa*, UNICEF, New York

UNICEF, Gouvernement du Sénégal, Direction de la Prévision et de la Statistique (2001) *Rapport de l'enquête sur les objectifs de la fin de décennie sur l'enfance (MICS II 2000)*, UNICEF, Dakar