

The Household Impact of HIV/AIDS on the Education of Children- A Study of HIV High Prevalence States of India

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The first AIDS case in India was detected in 1986 and since then, HIV/AIDS epidemic has emerged as a serious public health problem in India. Of the 39.4 million people living with HIV/AIDS worldwide, 7.1 million are from South and South East Asia and more than 70% of these infections are in India. It is estimated by the Indian government and the UNAIDS that as on December 2004, about 5.1 million individuals- 0.9 percent of the adult population were living with HIV/AIDS in India. Although the HIV prevalence of less than 1% of the adult population makes India a low prevalence country, given the country's large population of more than a billion people, even a small increase in the prevalence rate can result in tremendous increases in the number living with HIV. In absolute numbers India ranks second to South Africa, which has 5.3 million HIV positive people, but it is feared that soon India may have more people infected with HIV than any other country in the world. Moreover, in India the epidemic is no longer confined to the high-risk groups and it has started spreading to the general population.

The problem of HIV/AIDS has deep social and economic roots and hence its impact reaches far beyond the health sector with severe social and economic consequences. HIV/AIDS is more than a health problem and it affects the individual, family and the community at the micro level and the various sectors of the economy at the macro level. One such sector is education and HIV/AIDS is of great concern to this sector. The relationship between education and AIDS is a complex one. For instance, a general foundation in formal education can serve as a protective barrier to HIV infection and hence there is an increased need for education in the context of HIV/AIDS. The term "education vaccine" was coined in 2000 by experts to indicate that education is the first line of defense against the spread of HIV and education has been proved as a means to prevent HIV/AIDS (World Bank, 2002; Boler Tania and Kate Carroll, undated; Vandemoortele, Jan and Enrique Delamonica, 2000). However, while there are evidence to support the argument that education helps prevent HIV transmission, it has also been

shown in the worst affected countries that AIDS is seriously undercutting the education sector by affecting the demand, supply and quality of education. Globally HIV/AIDS is seen as an immense challenge to the education sector, and as an impediment to achieving the goal of education for all (EFA) by the year 2015. In worst affected areas, particularly in sub-Saharan Africa the impact of AIDS on the education sector has been severe. (UNESCO, 2001: Wijngaarden Jan and Sheldon Shaeffer, 2004)

Thus HIV/AIDS can have a large impact on the education of children by affecting (a) *the access to and demand for education* in a very profound way. At the macro level, although the school-age population may continue to grow, the size of this population may become smaller than in the absence of AIDS. Children's school enrolment may get affected and even if the children are enrolled, they may attend school intermittently and eventually may drop –out if their parents cannot afford to pay their fees and related out of pocket expenses due to reduced family income or increased health expenditure. Children, especially girls may be pulled out of school in order to care of the sick family members or to supplement family income. Children born to HIV positive parents or children infected with HIV infection may be denied access to school due to fears and stigmatization. In some cases children can be demotivated to go to school due to stressful family environment; (b) *the supply of education may be affected* due to higher levels of morbidity and mortality of teachers. Already several African countries are facing shortage of trained teachers due to losing teachers every year to AIDS (Vandemoortele, Jan and Enrique Delamonica, 2000). In an extreme situation the supply of education may be affected due to closure of schools and reduced public spending on education as a result of economic and fiscal impact of AIDS; and (c) *finally the quality of education may suffer* due to absenteeism from work by teachers as a result of their own illness or caring for the ill. The AIDS epidemic may also erode the quality of schooling because of the non-availability of qualified teachers and teaching materials. Teachers and students may be traumatized and de-motivated to learn. Thus the impact of HIV/AIDS can ultimately lead to reduction in demand for, supply, and quality of education, leading to difficulties in increasing school enrolment, completion rates and over all learning achievements. Since most of the HIV infected persons are not only in their prime working age, but are

also often parents of young school going children, the epidemic would have an adverse effect on many aspects of child welfare, including their education.

As it is, in India, not all children get enrolled in school; of the estimated 205 million in the age group of 6-14 years as on March 2002, nearly 18 percent were not enrolled in schools or in other words, nearly 36 million children were out of school. The drop out rate of children at the Primary level (class I-V) was 35percent and at the Upper Primary Level (class VI-VII) it was as high as 53percent in 2002-03. Also there is a considerable gender difference in the enrolment rate; while the Gross Enrolment rate at the elementary level (class I-VII) for boys was fairly high at 85.4 percent, the rate for the girls was lower at 79.3 percent for the year 2002-03. The dropout rate remains fairly high, especially in the case of girl students, for whom the rates in 2002-03 were 33.7 percent and 53.5 percent at the primary and upper primary levels respectively. The Sarva Shiksha Abhiyan (SSA), launched by the Government of India in November 2000, aims to ensure five years of education for all children in the age group 6-14 years by 2007 and eight years of schooling by 2010.

In Asia, so far no studies have been undertaken specifically to assess the impact of AIDS on education. Most of the existing studies on the socio economic impact of AIDS, barring a few household surveys conducted in countries like Thailand, Uganda and Africa, tend to focus mainly on the impact on the economy at the macro level. In India, there have been a number of studies mostly qualitative in nature on stigma and discrimination against the HIV/AIDS affected individuals and families. However, in the recent years some attempts have been made to study the socio-economic impact of HIV/AIDS at the household level. One such attempt is the recent survey conducted in the four states of India with the support of ILO on the socio-economic impact of HIV/AIDS on the people living with HIV/AIDS and their families. (ILO, 2003). However this survey did not collect details on the impact on the education of children, except in the context of withdrawing children from schools due to discrimination or for taking up an income earning activity. Recently another survey was conducted in the Sangli District of Maharashtra, India, to study the impact of adult death due to HIV/AIDS. . (Verma Ravi K

et al 2002) This study tried to examine the impact on the children's ability to access education and health, by comparing the households reporting adult death due to HIV/AIDS with the households reporting non-HIV/AIDS death and no death.

The present paper tries to examine the household impact of HIV/AIDS on the schooling of children in two of the HIV high prevalence states of India. The household impact is being measured not only by asking whether the child is going to school, but also by finding out the child's school attendance, the type of school attended, reasons for drop out etc. The paper is based on the data collected through a household survey just being completed in the six HIV high prevalence states of India by the National Council of Applied Economic Research (NCAER) with the support of UNDP and the National AIDS Control Organization (NACO) of India. This data relates the presence of HIV/AIDS in a household to its ability to continue educating its children and tries to capture the gender differentials, if any. Since the survey includes both HIV positive households and non-HIV households, by keeping the socio economic characteristics of the two sets of households similar, the paper attempts a cross sectional analysis of the differences in children's education in the two sets of households.

This paper has five sections. In the following section, the data and the methodology adopted for collecting the data and qualitative information are explained. Section III provides background information about the two selected states and the socio-economic profile of the sample households. It also includes demographic profile of the sample HIV positive persons. In Section IV, Survey Findings, ever and current enrolment rates and drop out rates of children belonging to two sets of sample households, i.e. HIV and Non-HIV households are compared. Data on school attendance and type of school attended by the children belonging to the two sets of households are also presented in this section. In the last section i.e. in Section V, reasons for non-enrolment and drop out of children are examined. This section draws inferences on the future /higher education of the children based on the answers obtained for the open ended questions as well as on the Focus Group discussions conducted with the members of the Net Work of positive people.

II. Data and Methodology

As mentioned earlier, the data for this paper is drawn from a household survey just being completed in the six HIV high prevalence states of India, namely Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Manipur and Nagaland. Though the survey has been completed in all the six states, this paper presents the survey results of only two states, namely Andhra Pradesh and Karnataka, since data for the other states are yet to be processed. In these states of Andhra Pradesh and Karnataka, the survey was conducted during the period October 2004 to February 2005.

The broad objective of the study is to assess the socio-economic impact of HIV/AIDS on households and the data is collected for two types of households- households with the presence of an HIV positive individual and households without any such individual. The purpose of surveying both HIV and non-HIV households (control group) was to compare the two types of households in terms of their socio-economic characteristics, pattern of household expenditure, prevalence of morbidity, differences in school enrolment and drop out, and time use pattern of all the household members.

Sample Size

In each of the high prevalence states, the survey covered 1600 households and out of this, one-fourth of households are those, which have HIV positive person. Since for a state-level analysis, it was thought that a minimum sample of 400 households would be required, a sample of 400 HIV positive households was drawn. This number is large enough considering the difficulties involved in identifying Persons Living with HIV/AIDS (PLWHA) and their households and more importantly securing their consent for interview. The sample was drawn from both rural and urban areas of the states.

Selection of districts

Based on the sentinel surveillance reports of the respective State AIDS Control Societies, the HIV high prevalence districts in these states were identified and out of these districts, in each state 6 to 7 districts were selected for conducting the survey. In every state, the

state capital, which also happens to be one of the high prevalence districts, was purposively selected as one of the sample sites and most of the urban sample was drawn from the state capital. Also, in order to get a representative picture of the state, the districts were selected keeping in mind their geographic spread across the state. The selection of the districts also depended upon the concentration / distribution of HIV/AIDS cases. The selection of districts was done in consultation with the State AIDS control societies since it was presumed that they would be in a position to provide more accurate information. In Andhra Pradesh, in addition to the state capital Hyderabad, the survey covered Chittoor, Cuddapah, East Godavari, Guntur, Krishna and Warangal districts. In Karnataka, besides Bangalore (rural/urban), the state capital, the districts surveyed include Belgaum, Bellary, Dharwad and Mysore.

Selection of HIV/AIDS households

Generally in sample surveys villages/urban blocks are first selected and then the household selection is made. However, in this study this procedure could not be followed for a number of reasons. Firstly, the selection of sample sites depended upon the presence of HIV/AIDS and not on the localities. Secondly, it was not possible for NCAER to get a list of HIV positive persons and their addresses from which sample households could have been drawn. The Voluntary Counseling & Testing Centres (VCTC) situated at some of the government hospitals do maintain a register with the addresses of those who have tested positive, but the VCTCs could not provide the list to NCAER research team due to the confidentiality clause in conducting the HIV/AIDS tests. Given these constraints and keeping in mind the ethical issues and the directions of the Institutional Review Board at NCAER, it was decided that the NCAER research team would not get access to the addresses of PLWHA. Instead it was decided to make use of the counselors of the State AIDS Control Societies who are directly in touch with the HIV/AIDS persons. While in the state of Karnataka the field survey of HIV positive persons was conducted by the VCTC Councilors, in the state of Andhra Pradesh some of the HIV positive persons who had been trained by the State AIDS Control Society to do out reach work were used. These persons were given training by the NCAER team and advised to select the sample from a diverse socio-economic profile of households. Attempt was also made to select

HIV positive persons from both the sexes and include positive persons at various stages of HIV infection. Further, the sample was selected from different places with which they were familiar with, such as the government general hospitals, TB hospitals, Care and Support Homes and drop-in-centres run by the NGOs, Net Work of Positive People, PPTCT and Ante-natal centres and the residences of the positive people. Individuals who do not live in a household set up (e.g sex workers, persons living in shelter homes, hostels etc) were excluded from the sample, as the focus of the study was to examine the impact of HIV/AIDS on the households. In every household a maximum of two adult PLWHA, mostly husband and wife, were interviewed.

Selection of non-HIV/AIDS households

For every HIV household surveyed in a village/urban block, three non-HIV households were interviewed. In every state the survey of Non-HIV households commenced after the survey of PLWHA was completed. Since the purpose of surveying non-HIV households is to make comparisons with the HIV households, the households belonging to similar socio-economic strata were selected for the study. The villages/blocks where the HIV positive households were residing were stratified by type of locality/ villages. In the case of towns/cities, they were divided into four categories- slums, low-income, middle income and high income localities and in the case of villages they were grouped according to the size / type of village. Similar localities from the same city/urban block/ village were selected for non-HIV households. In the selected localities listing of the households was undertaken and the non-HIV households (control group), were selected after listing by matching their income and occupational categories with the HIV/AIDS households.

Household Questionnaire

The household survey was conducted using a structured interview schedule. Both HIV and non-HIV questionnaires gather basic information like socio-economic characteristics of all the household members, household income and expenditure, prevalence of morbidity, differences in enrolment and drop out of children and time use pattern of all the household members. As far as the education of the children is concerned, the survey

included questions on enrolment, attendance, drop out and the reasons for non-enrolment, absenteeism, and drop out for all the children in the school going age group. Through the questions on reasons for drop out or non enrolment, stigma and discrimination in the schools, if any was captured.

Qualitative Techniques

In addition to the household survey, case studies and Focus Group Discussions (FGDs) were conducted in order to collect information that would supplement the findings of quantitative survey and probe into questions of how and why. Case studies were conducted to capture in-depth information on PLWHA. The FGDs were conducted with the members of the Network of Positive Persons. The main purpose of conducting the FGDs the Network of Positive Persons is to understand social and economic problems faced by them and the legal and other issues taken up by the network.

Training of Field investigators

Both male and female investigators were employed to canvass the questionnaire. The questionnaires were translated into regional languages and those who were fluent in the local language were selected for conducting the survey. The NCAER researchers provided training to the field investigators and also supervised the survey. The investigators were given both classroom and field training to enable them to administer the questionnaires. Since the subject of the study is of a sensitive nature, the investigators were trained to conduct the interviews keeping in mind the ethical issues involved and the investigators were required to get the verbal consent of the respondents to interview them.

III. Profile of the Selected States and the Households

This section gives background information about the two HIV High prevalence states which are being studied in this paper and the socio-economic profile of the sample households. This background information about the states includes a brief description of the current status of HIV prevalence in the states and the socio-economic and demographic profile of the states. The details about the households include the socio-

economic characteristics of the sample households and the demographic profile of the PLWHA who were interviewed for the survey.

Prevalence of HIV/AIDS in Andhra Pradesh and Karnataka

Based on the sentinel surveillance among the antenatal cases and high-risk groups, the various states of India are classified into three groups - Group I which is termed as Generalized High Risk Epidemic includes states with HIV $\geq 1\%$ among ANC; Group II which is concentrated Moderate Epidemic Risk includes states with HIV $> 5\%$ among High risk groups and $< 1\%$ among ANC. Finally the third Group includes all the other states of India with HIV $< 5\%$ among High risk groups and $< 1\%$ among ANC. There are six states, which are classified as HIV High Prevalence states and these states accounted for almost 69% of the 5.1 million HIV cases reported in the country at the end of 2004. The states of Andhra Pradesh and Karnataka are among these six high prevalence states.

According to the latest estimates for the year 2004, in the state of Andhra Pradesh 2.25% of the adult population is infected by HIV. Hence Andhra Pradesh becomes the first state in the country where HIV has crossed the 2% of the population mark. In Karnataka this percentage is lower at 1.25%. In both the states more than 1% of the women have tested HIV positive in the Ante natal clinics indicating that the infection has spread to the general population through bridge population. In these states like elsewhere in India, nearly 90% of the infection occurs through sexual route, mostly heterosexual. Of the one lakh four thousand AIDS cases reported in the country as on March 2005, nearly 11% were from the state of Andhra Pradesh. However Karnataka reported only 2397 AIDS cases accounting for nearly 2% of the total number of cases reported in the country.

Profile of the States

In terms of population and geographical area, Andhra Pradesh and Karnataka situated in the Southern part of India, are among the major states of India. According to the 2001 census, Andhra Pradesh has a population of 76 million spread over an area of 2.75 lakh sq. km. While the state of Andhra Pradesh is as bad as or somewhat worse than the national average in terms of urbanization, literacy, infant mortality and life expectancy,

the state registered a much lower rate of growth of population during the decade 1991-2001. The birth rate was also much lower at 20.7 as compared to the national average of 25.0.(refer to Appendix 1)

The performance of the state of Karnataka with a population of 52.8 million spread over a geographical area of 1.92lakh sq. km is better than the national average in terms of demographic as well as social and economic indicators. The state is more urbanized with more than one third of the population living in the urban areas. Sixty seven percent of the state's population is literate as compared to the national average of 65%. The crude birth rate is 22.1 and the death rate is 7.1, both of which are well below the national average. The Infant Mortality Rate for the state at 55 per thousand live births, an important indicator of the health status of the population is again well below the national average of 63.

As far as the educational attainment of the states is concerned, while the performance of Karnataka is much better than the national average, the attainment of Andhra Pradesh is no way better than the country's average. While the literacy rate for the 7+population is 64.8% for the country, the percentage is much lower at 60.5% for Andhra Pradesh and marginally higher at 66.7% for Karnataka. Same pattern emerges when the Gross Enrolment rates at both primary and upper primary levels are compared for the two states with the all India average. Interestingly, while not much gender differentials exist at the primary level, when it comes to enrolment at the Upper primary level, there are substantial gender differences in both the states as well as at the all India level. As compared to boys fewer girls are enrolled.

Profile of the Sample Households

In both the states most of the sample HIV households belong to low strata of society. Although there is enough evidence to show that it is the poor people who are more vulnerable to HIV/AIDS, in the present sample there are more households from the poor and low- income categories due to yet another reason. In spite of the best efforts, the VCTC councilors who acted as the Field Investigators could not get access to the upper

middle class and rich households and they drew their sample mainly from the public health facilities and the NGOs, which mostly cater to poor/ low- income households. Generally the middle/rich PLWHA would approach only the private health facilities for reasons of anonymity and this was corroborated by the doctors at a reputed private hospital in Tamil Nadu, another HIV high prevalence state. In an informal discussion with them, it was learnt that HIV positive persons do visit them for the treatment of opportunistic infections but due to reasons of confidentiality, the Councillors could not approach them.

Table 1: Socio- Economic Background of Sample Households

	Andhra Pradesh		Karnataka	
	HIV Household	Non-HIV Household	HIV Household	Non-HIV Household
Level of Education of Household Head				
Illiterate	43.3	34.5	39.4	28.0
Up to Primary	14.8	18.1	16.5	19.1
Up to Middle	12.0	13.2	14.0	15.6
Up to High School	17.5	20.0	19.5	22.8
Senior Secondary	4.8	5.4	5.7	7.1
Graduate/ Diploma	7.8	8.8	5.0	7.3
Occupation of Household Head				
Farmer	7.0	5.5	17.5	17.8
Agricultural Labor	24.0	23.8	9.0	6.2
Non-agricultural Labor	10.8	18.7	18.2	18.8
Salaried employment	18.3	17.0	15.7	20.0
Transport Workers	6.8	8.4	6.5	7.5
Trade/business	10.2	13.4	5.7	10.0
Other Self employed	9.5	10.0	4.5	6.2
Others	13.5	3.2	23.0	13.5
Percentage Distribution of HHs by Annual Income				
Upto 20000	24.2	11.2	30.4	18.7
20001 to 30000	26.0	43.4	23.2	37.5
30001 to 40000	16.8	15.1	14.2	15.0
40001 to 84000	25.0	22.2	27.2	26.0
Above 840000	8.0	8.1	5.0	2.8
Average Household Income (Rs)	41,964	41,088	35,911	36,892
N	400	1246	401	1202

In both the states, more than half of the sample households belong to the lowest two income classes i.e. up to Rs 30, 000 annual income category. In more than one third of the households (with an exception of Non-HIV households in Karnataka where the percentage is 28), the head of the household is illiterate (Table 1). Similarly, more than one third of the household head in Andhra Pradesh and more than one fourth in Karnataka are daily wage labourers. Obviously, the Non-HIV households also belong to more or less same level, since the sample of these households are drawn in such a way that they matched the income and occupational categories of the HIV households.

Table 2: Availability of Basic Amenities and Assets in Sample Households
(Percentages)

	Andhra Pradesh		Karnataka	
	HIV Household	Non-HIV Household	HIV Household	Non-HIV Household
Living in a Pucca House	40.2	35.9	29.2	38.9
Living in Huts/Kuccha House	24.0	28.4	29.2	14.8
Drinking Water-Own Tap/Hand Pump	29.8	39.4	27.9	30.8
Availability of Electricity	87.8	91.9	87.0	91.6
Availability of Toilet Facility	63.5	60.4	46.6	51.8
Ownership of House/flat	46.0	68.1	70.3	69.2
Ownership of Consumer Durables				
Fan	83.8	79.3	47.4	61.2
Bicycle	44.0	49.6	32.2	39.9
Radio/transistor	18.5	10.3	45.1	55.1
Tape recorder	31.5	13.3	31.7	42.8
Television- BW	40.0	42.5	30.7	39.9
Television- Color	17.5	17.4	18.0	29.1
Refrigerator	9.3	8.0	4.5	9.5
Telephone/ Mobile	20.5	13.6	13.7	17.3
Vehicle (Scooter/motor cycle)	8.3	11.4	9.7	17.9
Vehicle (car/jeep etc)	1.5	0.6	0.5	1.8
Ownership of agricultural land	14.0	10.4	15.5	10.5
Ownership of livestock	11.5	9.3	17.2	15.9

The ownership of assets and availability of basic amenities in the household also indicate that their economic status is quite low (Table 2). Although a significant number of households own a house, these houses could be just huts. Not all households have electricity and many do not have own tap/hand pump for water or toilet facility in their houses.

Table3: Socio-Economic Characteristics of the Sample PLWHA

(Percentages)

	Andhra Pradesh		Karnataka	
	Male	Female	Male	Female
Age				
≤ 20	5.4	13.1	4.4	13.6
20-30	47.1	64.1	31.4	59.6
31-40	37.0	21.5	48.8	20.7
>40	10.5	1.3	15.4	6.1
Marital Status				
Currently Married	70.4	38.8	77.8	54.3
Separated/Divorced /Abandoned	6.6	8.0	2.4	6.2
Widowed	5.1	48.6	2.7	30.9
Unmarried	17.9	4.6	17.1	8.6
Education				
Illiterate	44.0	40.9	35.5	39.9
Up to Primary	12.5	16.9	15.0	19.3
Up to Middle	11.7	16.0	13.6	14.4
High School	16.7	16.5	22.5	18.9
Senior Secondary	5.8	3.4	7.5	4.5
Graduate / Diploma	9.3	6.3	5.8	2.9
Occupation				
Cultivation	7.0	-	18.1	1.2
Agr. Wage Labour	19.1	18.1	8.2	6.6
Other Non-agricultural Labor	11.3	4.6	18.8	8.6
Salaried	19.8	14.4	18.4	7.8
Trade/business	8.6	7.6	7.5	2.1
Artisan/self-employed	10.1	8.0	2.7	6.6
Transport Workers	12.8	-	9.9	-
Domestic Servant	-	2.1	-	4.5
Others	1.2	0.4	0.7	0.4
Unemployed/Housewife	10.1	44.7	15.7	61.7
N	257	237	293	243

As expected most of the sample PLWHA are in the age group of 20 to 40 years (Table 3). While more than 70% of the men are currently married, in the case of women this percentage is lower at 39% in Andhra Pradesh and 54 % in Karnataka. As expected there are more widows in the sample (49% in Andhra Pradesh and 31% in Karnataka) than widowers. The level of education of the PLWHA is also quite low as more than 40 % in Andhra Pradesh and more than 35% in Karnataka are illiterate. As far as the occupation of the HIV positive men are concerned, more than one fourth are working as wage

labourers and 10 to 13 % are working in the transport sector. More than 10% of the men are currently unemployed.

IV. Survey Findings

In this section, the household impact on enrolment and continuation of school education of children belonging to two sets of sample households, namely HIV/AIDS households and Non-HIV households are assessed based on the survey results. A number of reports published on this subject quote the empirical studies undertaken in African countries and Latin America on the impact of HIV/AIDS on enrolment rates and continuation of schooling of AIDS orphans (Coombe 2002; Kelly 2000; World Bank 2000). The recent study undertaken in the Sangli district of Maharashtra, India was also based on the data collected from three sets of households, namely Households with AIDS death, non-HIV/AIDS death and no death (Verma et al 2002). However, in the present study, the whole approach is different since the study is based on the interviews of people living with HIV/AIDS and as a result in these households, at least one of the parents is alive. This paper tries to compare the enrolment rates and drop out rates of children belonging to two sets of households i.e. households with the presence of a HIV positive individual, and households without any such individual.

Ever and Current Enrolment Rates

The ever and current enrolment rates for children in the age group of 6-14 years, which corresponds to class I-VIII are presented in Table 4. The gross enrolment ratio is calculated as, number of children in the age group 6-14 who were ever enrolled as a percentage of total number of children in that age group. The current enrolment rate is calculated by taking the number children who are currently studying, as a percentage of total number of children in that age group.

Table 4: Ever and Current Enrolment of Children (6-14 Yrs) in HIV and Non-HIV Households in Andhra Pradesh and Karnataka

(Percentages)

	Andhra Pradesh		Karnataka	
	HIV Household	Non-HIV Household	HIV Household	Non-HIV Household
Ever Enrolled				
Boys	94.1	97.2	89.3	96.1
Girls	92.6	96.6	85.2	96.4
Total	93.3	96.9	87.2	96.2
F/M	0.98	0.99	0.95	1.00
Currently Enrolled				
Boys	88.8	92.8	86.0	95.5
Girls	87.1	92.0	79.4	94.3
Total	87.9	92.4	82.6	95.0
F/M	0.98	0.99	0.92	0.99

In both the states, the ever as well as the current enrolment rates have worked out to be lower for the children belonging to HIV households as compared to non-HIV households and the difference is more pronounced in the case of Karnataka. While in Andhra Pradesh, the ever enrolment rates are 93.3 for the HIV households and 96.9 for the Non-HIV households, in Karnataka the rates are 87.2 and 96.2 for the respective households. However, in the case of Andhra Pradesh, although there is not much difference in the enrolment rates of children belonging to two types of households, there is a substantial difference in the current enrolment rates. This indicates that while most of the HIV households enroll their wards in the school, many are not able to continue to educate them.

The table shows that gender gap in ever enrolment as well as in the current enrolment is more or less same (and marginal) in both types of households in Andhra Pradesh. In Karnataka, the gender gap in these two rates is more in the case of children belonging to HIV households as compared to Non-HIV households, where the gap is non-existent in ever-enrollment rates and marginal in current enrollment rates.

Drop out Rates and Number of Years of Schooling

Two observations are evident from Table 5. Firstly, the drop out rates are lower for the Non-HIV households as compared to HIV households, especially in Karnataka. While the drop out rates for Andhra Pradesh HIV and Non-HIV households are respectively 5.8 % and 4.6%, in Karnataka the rates for the HIV and Non-HIV households work out to be 5.3% and 1.3% respectively.

Table 5: Drop out rates and Number of years of Schooling Completed by Drop out Children (6-14 Yrs)

(Per centages)

	Andra Pradesh		Karnataka	
	HIV Household	Non-HIV Household	HIV Household	Non-HIV Household
Percentage of Children who have dropped Out of School				
Boys	5.6	4.5	3.7	0.6
Girls	6.0	4.7	6.8	2.1
Total	5.8	4.6	5.3	1.3
F/M	1.07	1.04	1.84	3.50
Average Number of years of Schooling Completed by Drop outs				
Boys	4.9	5.1	1.6	3.0
Girls	5.4	5.0	3.6	5.3
Total	5.2	5.1	2.9	4.8
F/M	1.10	0.98	2.25	1.77

Secondly, irrespective of the type of households, gender differences in the drop out rates persist; the difference is more pronounced in the case of Karnataka, although the drop out rates are much lower (for the Non-HIV households) than the drop out rates for the state of Andhra Pradesh.

Similarly, the average number of years of schooling completed by the children who had dropped out of school is also comparatively lower in the case of children belonging to HIV households, in Karnataka and more or less same for the children of Andhra Pradesh. The average number of years of schooling completed are 5.2 years for HIV households and 5.1 years for the Non-HIV households in Andhra Pradesh and 2.9 years for the HIV and 4.8 years for the Non-HIV households in Karnataka. Here again the gender

differences do persist and the gender difference in the number of years of schooling completed is more in the case of children of HIV households than non-HIV households indicating that in the HIV households, as compared to boys, girls are withdrawn from school much earlier.

Ever and Current Enrolment by Household Income

The ever enrolment and current enrolment rates are worked out for the children belonging to both types of households by the household income categories and are presented respectively in Table 6A and 6B.

**Table 6A: Ever Enrolment Rates for Children (6-14 years)
By Annual Household Income Categories**

(Percentages)

Annual Household Income(Rs)	HIV Households			Non-HIV Households		
	Boys	Girls	All	Boys	Girls	All
Andhra Pradesh						
Up to 20,000	96.0	89.3	92.5	98.0	100.0	98.9
20,001-30,001	94.6	90.7	92.5	96.6	98.7	97.6
30,001-41,001	100.0	100.0	100.0	96.4	88.6	92.6
41001-84,000	83.3	93.3	88.3	97.6	96.4	97.0
Above 84,000	100.0	100.0	100.0	100.0	100.0	100.0
N	152	163	315	568	502	1070
Karnataka						
Up to 20,000	90.2	85.5	87.7	93.3	91.3	92.3
20,001-30,001	91.2	81.0	85.5	93.7	95.4	94.5
30,001-41,001	82.4	68.4	75.0	100.0	100.0	100.0
41001-84,000	90.2	96.8	93.1	98.4	98.3	98.3
Above 84,000	100.0	100.0	100.0	100.0	100.0	100.0
N	150	155	305	508	442	950

**Table 6B: Current Enrolment Rates for Children (6-14 years)
By Annual Household Income Categories**

(Percentages)

Annual Household Income(Rs)	HIV Households			Non-HIV Households		
	Boys	Girls	All	Boys	Girls	All
Andhra Pradesh						
Up to 20,000	84.0	82.1	83.0	93.9	95.1	94.4
20,001-30,001	94.6	86.1	90.0	90.8	91.0	90.9
30,001-41,001	93.3	92.6	93.0	92.8	88.6	90.7
41001-84,000	83.3	90.0	86.7	93.6	94.6	94.1
Above 84,000	100.0	100.0	100.0	100.0	94.7	97.7
Karnataka						
Up to 20,000	88.2	80.0	84.0	93.3	90.0	91.7
20,001-30,001	82.4	73.8	77.6	93.2	92.2	92.7
30,001-41,001	82.4	63.2	72.2	98.9	98.6	98.8
41001-84,000	87.8	90.3	88.9	98.4	97.5	97.9
Above 84,000	100.0	100.0	100.0	100.0	100.0	100.0

The table 6A on ever enrolment shows that in the highest income category households all the children are enrolled. Irrespective of the type of household i.e. whether it is a HIV or Non-HIV household, the moment the household reaches a certain level of income, all the children get enrolled in school and that threshold level of income seems to be Rs 84,000 per annum in both the states. After reaching this level, households do not seem to discriminate against female children, at least as far as enrolment is concerned.

More or less the same holds good for the current enrolment rates as well, with an exception of girls belonging to non-HIV households in Andhra Pradesh (Table 6B). Thus, it becomes clear from these results that income is an important determinant of children's schooling. However, unfortunately in both the states only a small percentage of the sample households belong to above 84,000 Rupees income category.

Ever and Current Enrolment Rates by Level of Education of Household Head

The relationship between the level of education of the household head and the enrolment of children in school has come out very clearly (Table 7A and 7B). The ever enrolment as well as the current enrolment rates for both types of households go up with the rise in the level of education of the household head. Though at every level of education, both the ever and current enrolment rates are lower for the children belonging to the HIV

households as compared to Non-HIV households, the gender gap seems to narrow down with the improvement in the education level of the household. This indicates that irrespective of the type of household (HIV or Non-HIV), children belonging to educated families have better chance of getting educated.

**Table 7A: Ever Enrolment Rates for Children (6-14 years)
By Level of Education of Household Head**

(Percentages)

Education of household head	HIV Households			Non-HIV Households		
	Boys	Girls	All	Boys	Girls	All
Andhra Pradesh						
Illiterate	92.7	86.0	89.6	96.1	95.2	95.7
Up to Middle	93.0	94.3	93.8	96.3	96.8	96.5
High School/ Higher Secondary	97.1	100.0	98.8	98.6	98.2	98.5
Graduate/Diploma	100.0	87.5	92.9	100.0	97.8	99.0
N	152	163	315	568	502	1070
Karnataka						
Illiterate	84.9	81.4	82.9	91.2	94.2	92.6
Up to Middle	92.2	84.6	88.9	96.6	96.2	96.5
High School/ Higher Secondary	92.1	90.7	91.4	98.8	97.5	98.2
Graduate/Diploma	87.5	100.0	90.9	100.0	100.0	100.0
N	150	155	305	508	442	950

**Table 7B: Current Enrolment Rates for Children (6-14 years)
By Level of Education of Household Head**

(Percentages)

Education of household head	HIV Households			Non-HIV Households		
	Boys	Girls	All	Boys	Girls	All
Andhra Pradesh						
Illiterate	80.9	79.0	80.0	89.2	85.2	87.3
Up to Middle	93.0	86.8	89.6	92.6	94.8	93.7
High School/ Higher Secondary	97.1	97.8	97.5	95.2	98.2	95.6
Graduate/Diploma	100.0	87.5	92.9	100.0	95.6	97.9
Karnataka						
Illiterate	81.1	74.3	77.2	89.7	91.7	90.6
Up to Middle	88.2	76.9	83.3	96.6	92.6	94.9
High School/ Higher Secondary	89.5	88.4	88.9	98.8	97.5	98.2
Graduate/Diploma	87.5	88.6	90.9	100.0	100.0	100.0

Type of School Attended

The percentage of children studying in Government schools works out to be much higher for the children of HIV households as compared to the Non-HIV households (Table 8). While in Andhra Pradesh, 66 % of the children belonging to HIV households are attending government schools, only 59% of the children belonging to Non-HIV households go to government schools. For the state of Karnataka, these percentages are respectively 78 and 60. Since the expenses in the government schools are comparatively lower, it is not surprising that more children from the HIV households are studying in public schools. Since the private schools are more expensive, it may be difficult for the HIV households to send their children to private schools.

**Table 8: Percentage Distribution of Currently Enrolled Children (6-14 Yrs)
by Type of School Attended**

(Percentages)

Age Group/ type of school	HIV Households			Non-HIV Households		
	Boys	Girls	All	Boys	Girls	All
Andhra Pradesh						
Government	63.0	67.9	65.6	55.7	63.1	58.7
Private	37.0	31.3	34.0	44.3	37.9	41.3
Informal/Others	-	0.8	0.4	-	-	-
Total	100.0	100.0	100.0	100	100	100
Karnataka						
Government	76.7	78.4	77.5	61.1	59.5	60.4
Private	20.4	19.3	19.9	38.9	40.5	39.6
Informal/Others	2.9	2.3	2.6	-	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0

These findings are corroborated by the views expressed by the participants of the Focus Group Discussions conducted by the NCAER research team with the members of the Net Work of positive people at various places. A number of them expressed their unhappiness over sending their wards to government schools and their inability to afford English medium private schools, which are perceived to be better (to some extent rightly so) in terms of quality of education. In Karnataka, a female participant of the Focus Group Discussion lamented that since she needed money for the treatment of her husband, her

child had to be shifted from an English medium school to a Kannada medium government school.

Also, with the exception of Non-HIV households of Karnataka, the percentage going to government school works out to be higher for girls as compared to boys. In Andhra Pradesh, while 68% of the girls from HIV households are studying in government schools, only 63 % of boys are in the government schools. Similarly in the Non-HIV households of Andhra Pradesh, the percentage studying in government schools works out to be 63 for girls and 56 for boys.

School Attendance

The average number of days absent from school during the last academic session does not work out to be very different for the children belonging to both types of households. (Table 9). In Andhra Pradesh, the number of days absent from school works out to be 9.5 for the children of HIV households and 11.1 for the children belonging to Non-HIV households. Similarly the number days absent from school works out to be 9.9 and 8.2 respectively for the children of HIV and Non-HIV households.

However, there are interesting differences in the reasons for absence. The percentage of children not attending school due to ill health of the parents obviously works out to be much higher for the children belonging to HIV households. (36% and 9% respectively for the children of HIV and Non-HIV households in Andhra Pradesh and 28% and 5% respectively for the children of HIV and Non-HIV households in Karnataka)

Another significant finding is that mostly the children belonging to HIV households seem to miss school more due to reasons like their own ill health or the ill health of the parents. Where as the children belonging to Non-HIV households seem to be absent from the school to have fun (e.g. to go out of station or to attend social function). Interestingly, 'child refused to attend school' seems to be an important reason for being absent from school in both types of households. Of course in both types of households, another

important reason for not attending school seems to be ‘child himself/herself being unwell’.

**Table 9: School Attendance of Children (6-14 years)
in the Last academic Year by Type of Household**

	HIV Households			Non-HIV Households		
Andhra Pradesh	Boys	Girls	All	Boys	Girls	All
No of days absent during last academic year (Averages)	8.6	10.4	9.5	11.0	11.1	11.1
Reasons For Absence (%)*						
1.Child unwell	34.1	40.5	37.6	72.1	71.9	72.0
2. Parent unwell	35.2	36.0	35.6	9.4	8.7	9.0
3. went out of station	14.3	8.1	10.9	34.7	33.8	34.3
4.Not paid fees/not allowed to attend	4.4	6.3	5.5	0.9	0.6	0.8
5.School environment not conducive		3.6	2.0	1.2	1.5	1.3
6. Child refused to attend	41.8	33.3	37.1	30.5	33.3	31.8
7. Had to attend social function	6.6	2.7	4.5	8.7	7.1	8.0
8. Had to look after younger siblings/attend to HH chores	2.2	3.6	3.0	0.5	1.1	0.8
9.Others	1.1	.9	1.0	1.4	0.9	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Karnataka						
No of days absent during last academic year (Averages)	11.2	8.5	9.9	8.2	8.1	8.2
Reasons For Absence (%)						
1.Child unwell	43.9	35.6	41.3	51.2	55.5	53.2
2. Parent unwell	17.6	28.8	28.1	5.2	4.3	4.8
3. went out of station	25.3	30.1	27.5	31.7	29.9	30.9
4.Not paid fees/not allowed to attend				0.8	1.0	0.9
5.School environment not conducive				1.6	1.4	1.5
6. Child refused to attend	20.7	16.4	18.8	1.3	8.5	10.6
7. Had to attend social function	26.4	28.8	27.5	56.0	58.8	57.2
8. Had to look after younger siblings/attend to HH chores	4.6	5.5	5.0	5.6	3.3	4.5
9.Others	5.8	4.1	5.0	2.8	1.4	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

* The reasons would not add to 100 due to multiple answers.

V. Discussion

The survey results indicate that the presence of a HIV/AIDS affected individual in a household does affect the children's schooling. Though the enrolment of children in school is affected only to some extent, continuation of schooling seems a greater problem for these children. In both the states, schooling of children belonging to HIV households is discontinued, mainly because they are 'required to perform domestic chores/ participate in paid work/ take care of younger sibling'. These are reported as important reasons for drop out in the case of 50% of the boys and 78% of the girls in Andhra Pradesh and for 75% of the boys and 50% of the girls who had discontinued their schooling in Karnataka. Whereas in the case of Non-HIV households the percentage reporting these reasons are quite low in Andhra Pradesh and almost negligible in Karnataka. The fact that a number of children from the HIV households have dropped out for taking up income earning activities or to take care of younger siblings or household chores, shows that the opportunity costs also works as a great barrier to school participation.

Another important reason for drop out of children belonging to the HIV households turns out to be the household's inability to afford schooling indicating that many of the HIV households are not able to afford education due to reduced household income or increasing expenditure on medical treatment. Even if the schooling is free, the households have to bear some costs like purchase of textbooks, exercise books, uniforms, etc. In fact in both HIV and Non-HIV households a significant percentage (surprisingly the percentage is higher for the Non- HIV households) reported that the various incentives provided by the government have influenced their decision to enroll the children in school. The most popular scheme seems to be the 'Mid day Meals Scheme' and the other incentives mentioned include free books, hostel accommodation and free school uniform supplied by the government to children belonging to economically weaker sections of society.

Interestingly, no HIV household has reported stigma and discrimination as reasons for non-enrolment or discontinuation of schooling. Does this mean there is no discrimination in the schools? The Focus Group Discussions conducted with the HIV positive persons provide some clue this. Most of the parents mentioned that as far as possible their HIV status is not disclosed in the schools, fearing discrimination and they do not think that there is any need to disclose their status. Hence the question of discrimination does not arise. Unless the child him/herself is positive, the school authorities are not likely to come to know about the parents' HIV status, especially in an urban set up. (Incidentally, in the present study, only a few children of the school going age group were positive. In Andhra Pradesh 11 children in the age group of 6-11 years were reported positive and of these 7 were enrolled in school and all the 7 were studying at the time of the survey. In Karnataka 15 cases were reported and out of these, 11 were enrolled in school and one of them had dropped out of school).

Also, as reported by some of the participants of FGD in Andhra Pradesh, although initially there were problems in admitting their children in schools, at present due to better awareness, there seems to be less discrimination. Even in another state the HIV positive parents mentioned that they did not face any difficulty in admitting their children in school.

Another genuine concern is the future of the children whose parents are HIV positive. How long can they continue to educate their wards? Interestingly most of the parents, even if they themselves were not very well educated, seem very keen to educate their children. They seem to have tremendous faith in education and more than 70% of the HIV positive respondents think that education would improve the employment prospects of their children. They want to educate their children as long as they can and most of them feel that in order to get employment, education up to graduation level is necessary. Although the parents may not live to reap the benefit of their children's education, they are keen to educate them. However, not all can afford to do so. Only a small percentage mentioned that they could afford to educate their children beyond middle school. Given the strong family ties in India, a number of them, especially the widows, were confident

that the grandparents or the uncles would take care of their children. Others hope that the government or an NGO would come to their rescue. There are residential schools in some of the HIV high prevalence states where children of HIV positive parents are educated. But they are very few in number and cannot cater to all. Probably the solution lies in opening more such boarding schools to take care of the AIDs orphans. But how to raise resources to run such school ? These are some of the issues to be discussed and debated to help the AIDs orphans.

References

Coombe Carol 2002, “ Mitigating the Impact of HIV/AIDS on Education Supply, Demand and Quality” in Giovanni Andrea Cornia (ed) *AIDS, Public Policy and Child Well-being*, Innocenti Research Center UNICEF

ILO 2003, *Socio-economic impact of HIV/AIDS on People Living With HIV/AIDS & their families*, A Study conducted as part of the by Prevention of HIV/AIDS in the World of Work: A Tripartite Response, an ILO Project supported by the US Department of Labor.

Kelly Michael J 2000, *Planning for Education in the Context of HIV/AIDS*, UNESCO: International Institute for Educational Planning.

Tania Boler and Kate Carroll, “ Addressing the educational needs of orphans and children”, *Policy & Research*: issue 2 UK Working Group on education and HIV/AIDS

UNESCO, 2001, *UNESCO's Strategy for HIV/AIDS Preventive Education*, International Institute for Educational Planning, Paris.

Verma Ravi K et al 2002, “HIV/AIDS and Children in the Sangli District of Maharashtra (India)” in *AIDS, Public Policy and Child Well-Being*, Giovanni Andrea Cornia (ed) *AIDS, Public Policy and Child Well-being*, Innocenti Research Center UNICEF

Vandemoortele, Jan and Enrique Delamonica, 2000 “ The education Vaccine’ against HIV”, *Current Issues in Comparative Education*, Vol 3:1

Wijngaarden Jan and Sheldon Shaeffer, 2004. “ Human rights and Education in the context of HIV/AIDS in Asia”, Paper Commissioned by the United Nations Office of the High Commissioner for Human Rights (UNOHCHR) in Bangkok for an expert consultation meeting in March, 2004.

World Bank 2002, *Education and HIV/AIDS. A Window of Hope*.

Appendix 1

Background Information on Sample States

	Andhra Pradesh	Karnataka	All India
Population(2001 Census) in million	76.21	52.85	1028.74
Area (in lakh sq. Km) (2001 census)	2.75	1.92	31.66
Number of districts	23	27	593
Percentage of Urban Population	27.08	33.98	27.78
Growth rate in Population (1991-2001) %	13.86	17.25	21.34
Literacy Rate for Population 7+	60.47	66.64	64.84
Gross Enrolment Rate Class I- V	95.9	110.7	95.4
Boys	95.5	112.1	97.5
Girls	96.4	109.1	93.1
Gross Enrolment Rate Class VI-VIII	63.1	74.3	61.0
Boys	65.8	77.3	65.3
Girls	60.3	71.1	56.2
Life Expectancy at birth (2001-06)			
Male	62.79	62.43	63.87
Female	65.00	66.44	66.91
Infant Mortality Rate (2002)	62	55	63
Male	64	56	62
Female	60	53	65
Birth Rate (2002)	20.7	22.1	25.0
Death rate (2002)	8.1	7.2	8.1
% Population below Poverty Line (1999-2000)	15.77	20.04	26.10

Source: Economic Survey 2004-05, Government of India

Handbook of Social Welfare Statistics, NCAER