The Impact of HIV/AIDS on the Food Consumption of Households

SAVIO P. FALLEIRO AND SILVIA M. NORONHA

The paper explores the impact of HIV/AIDS on the food consumption pattern of households through empirical research and comparative analysis. The findings highlight that HIV/AIDS households are at a significant disadvantage despite spending a relatively greater proportion of household income on food. Unlike non-HIV/AIDS households, where female-headed-households were at a disadvantage, food-expenses are gender-neutral in HIV/AIDS households. These women make up their income disadvantage by depending significantly on 'partly/fully sponsored' food and 'unrequited and/or unrevealed income'.

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INTRODUCTION

Ever since the human immunodeficiency virus (HIV) was detected in 1981, the illness has reached pandemic proportions with devastating effects on human development and claiming millions of lives worldwide. A large number of those infected, live a life of extreme penury, despair, squalor and hopelessness. According to the Red Cross and the Red Crescent, the incidence of acquired immunodeficiency syndrome (AIDS) has become so widespread in some parts of the world that the disease requires to be classified in the category of disasters, which, as per the UN definition, are events beyond the scope of any single society to cope with (Foulkes, 2008). According to UNAIDS (2010 : 23) there are an estimated 33.3
million HIV infected people presently living around the world. While over 25 million lives have already been lost to the dreaded AIDS (GSACS, 2010; Singhal and Rogers, 2006: 24), around two million or more are lost every year (GSACS, 2010; HRLN, 2008: 26). About 95 percent of all HIV infections arise in developing countries (Singhal and Rogers, 2006: 24), with a majority of those infected being in their economically productive age. With about 2.5 million HIV positive (HIV+) people, India has the third largest population of HIV+ infected people in the world. (Ramachandran and Rajalakshmi, 2009: 23; Sinha, 2007: 6).

According to the data available with the National Aids Control Organisation (NACO), Goa, is considered to be among one of the ‘moderate prevalence’ states, bordered by the two ‘high prevalence’ states of Maharashtra and Karnataka. There are an estimated 16,000 HIV+ people living in Goa with an average of about three HIV cases detected each day at the Integrated Counselling and Testing Centres (ICTCs) itself. Almost three-quarters of the cases are located in the coastal belt; the sexual mode of HIV-transmission accounting for 83–96 percent of the cases (GSACS, 2010). While the disease is more prevalent in men, more females of the younger age group have been found to be infected.

According to an NCAER study backed by NACO and UNDP, the absence of remedial policies was likely to push up health expenditure for all the affected households (HHs) and the State, thereby eating into savings, crowding-out investment and hitting growth between 2002-03 to 2015-16 (Sharma and Baxi, 2007: 12; Ojha and Pradhan, 2006: xxi).

THEORETICAL BACKGROUND

The right to food covers both accessibility and availability of food, with the former in the Indian context representing affordability (HRLN, 2008: 152). Despite India’s surplus food production, millions of Indians are deprived of food, thus leading to the malnourishment of more than half the population of her children and women; nearly two million children die every year because of malnutrition and preventable diseases (Medhini and others, 2007: 1092). In the face of this food scarcity, the four important pillars of human development: equity, sustainability, production and empowerment remain challenged.

Poverty provides a fertile breeding ground for diseases like HIV through the adoption of risky survival activities (UNESC/ESCAP, 2004: 3; HRLN, 2008: 152). People most vulnerable to HIV infection include members of the unorganised sector, including old people without care-givers,
single female headed (FH)-HHs, persons with disabilities, and socially oppressed groups (Medhini and others, 2007: 1092). Food insecurity and malnutrition can accelerate the spread of HIV, both by increasing people’s exposure to the virus\(^2\) and by increasing the risk of infection following exposure\(^3\) (Sharma, 2006: 150–151). Minimising chronic food scarcity not only reduces the damage caused by the high rates of starvation deaths or illnesses related to malnutrition, but also reduces susceptibility to stress-induced infection by deterring activities/behaviours that increase exposure to the infection (Medhini and others, 2007: 1088).

As highlighted by Sharma (2006: 146) ensuring food and nutrition security is one major impact of HIV/AIDS.\(^4\) In South Africa, the average monthly per capita food expenditure of afflicted HHs was about 70–80 percent as compared to non-afflicted HHs, but with no significant difference in total monthly expenses, apparently because of rise in health-related expenditures (Medhini and others, 2007: 1088). Other independent studies have too stated reduction in HH food-consumption post-HIV/AIDS wherein: in Thailand more than half the HH reduced food intake (Pitayanon and others, 1997); in the urban areas of Côte d’Ivoire, consumption fell by 41 percent per capita (UNAIDS, 2000); in South Africa where poor HIV/AIDS HHs were further reducing spending on necessities, almost half reported insufficient food and hunger (Steinberg and others, 2002). In India, reference to lowered food expenses/consumption due to HIV/AIDS can be found in the NCAER/NACO/UNDP study (Pradhan and others, 2006). While HIV/AIDS inflicted fall in food-consumption cuts across HHs in general, the same is nevertheless often more severe and significant in FH-HHs. A study in Zambia showed FH-HHs being ‘food-insufficient’ for an average 3.4 months per year (FAO, 2004).

**Objectives of the Study**

- To examine the impact of HIV/AIDS on food-consumption of individuals/HHs;
- To examine if gender-biases exist with regard to food-consumption; and
- To make a comparative analysis of findings with those of matched non-HIV/AIDS HHs.

**RESEARCH METHODOLOGY**

The study was conducted on a sample of 200 HIV/AIDS HHs across Goa wherein each HH had at least one HIV+ person within the age group of 18–60 years. The sample was drawn from amongst those individuals...
whose HIV+ status was detected at the ICTCs in Goa; who were presently residing in Goa; who were part of HHs; and those who were able and willing to take part in the study. The sample is >five percent of the total number of HIV/AIDS HHs in Goa (figures sourced from ICTC/GSACS).

The sensitive nature of HIV/AIDS demanded the use of non-probability sampling techniques. With the indirect assistance of NGOs, the researchers collected data through interviews in 2009. Established ethical norms were followed throughout the study, with the principle of voluntary consent and elements of informed consent being scrupulously adhered to. The respondents were assured of strict confidentiality. Prior permission was always obtained from the concerned NGOs/doctors associated with the respondents.

The control group (CGr) comprising non HIV/AIDS HHs was selected on a 1:1 ratio with HIV/AIDS HHs through purposive sampling. The locale of the HIV/AIDS HH, educational qualifications of the HIV/AIDS HH-heads [HHH] and the socio-cultural background of the HIV/AIDS HHs were some of the primary factors considered while selecting the CGr. Different schedules adapted from the questionnaires prepared by NCAER (2004) were used for each sample.

The study makes use of chi-square tests of independence and Fishers Exact Test [FET] to understand ‘association’ issues; and Mann-Whitney U [MW-U] tests to analyse significance of ‘differences’ between the two independent samples. With regard to chi-square, the procedure of redoing cells was adopted whenever the need arose. Considering the peculiar nature and constraints of the study, non-parametric tools were used due to their superiority.

**Sample Profile**

Select features of sample HHs are provided in Table 1. While 45 percent of the respondents were males and 55 percent females, the mean age of the HIV+ respondents was 36.5 years.

**Limitations of the Study**

Though the findings obtained are indicative for those not part of the study, definitive generalisations cannot be drawn for the entire population of HIV+ individuals, due to the nature of sampling and testing techniques utilised.

Though in consonance with available international literature on the concentration of HIV among the poor and marginalised sections of society, there is a possibility of the study appearing to slant more towards those from lower economic brackets.
TABLE 1: Comparative Profile of Sample HHs

<table>
<thead>
<tr>
<th>Age of the HHH</th>
<th>HIV/AIDS HHs#</th>
<th>Non-HIV/AIDS HHs##</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sex of HHH</td>
<td>Sex of HHH</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>20–30 years</td>
<td>6 (3)</td>
<td>13 (6.5)</td>
</tr>
<tr>
<td>31–40 years</td>
<td>49 (24.5)</td>
<td>28 (14)</td>
</tr>
<tr>
<td>41–50 years</td>
<td>32 (16)</td>
<td>15 (7.5)</td>
</tr>
<tr>
<td>51–60 years</td>
<td>20 (10)</td>
<td>17 (8.5)</td>
</tr>
<tr>
<td>Above 60 years</td>
<td>10 (5)</td>
<td>10 (5)</td>
</tr>
</tbody>
</table>

Educational qualifications of the HHH

<table>
<thead>
<tr>
<th>Qualification</th>
<th>HIV/AIDS HHs#</th>
<th>Non-HIV/AIDS HHs##</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Illiterate</td>
<td>27 (13.5)</td>
<td>47 (23.5)</td>
</tr>
<tr>
<td>Primary</td>
<td>13 (6.5)</td>
<td>10 (5)</td>
</tr>
<tr>
<td>Fifth-SSC</td>
<td>57 (28.5)</td>
<td>20 (10)</td>
</tr>
<tr>
<td>HSSC</td>
<td>8 (4)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Graduate</td>
<td>9 (4.5)</td>
<td>3 (1.5)</td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>1 (.5)</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>2 (1)</td>
<td>1 (.5)</td>
</tr>
</tbody>
</table>

Total annual HH income* (in rupees)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>HIV/AIDS HHs#</th>
<th>Non-HIV/AIDS HHs##</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 50,000</td>
<td>60 (30)</td>
<td>68 (34)</td>
</tr>
<tr>
<td>50,001–1,00,000</td>
<td>33 (16.5)</td>
<td>9 (4.5)</td>
</tr>
<tr>
<td>1,00,001–1,50,000</td>
<td>11 (5.5)</td>
<td>3 (1.5)</td>
</tr>
<tr>
<td>1,50,001–2,50,000</td>
<td>7 (3.5)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Above 2,50,000</td>
<td>6 (3)</td>
<td>1 (.5)</td>
</tr>
</tbody>
</table>

Total 117 (58.5) | 83 (41.5) | 200 (100) | 152 (76) | 48 (24) | (100) |

Note: Figures in percentage terms given in brackets

^ Mean age of HIV/AIDS HHH: 44.95 years [for CGr: 48.42 years]

@ 69.5 percent of the HIV/AIDS HHs were themselves HIV+ [74.36 percent and 62.65 percent of the male and female-HHs were HIV+]

# Average size of HHs: 3.77 members

### Average size of HHs: 4.48 members

* There was significant difference in total annual HH income of the two samples at the 0.01 level [p=.000].
RESULTS AND DISCUSSION

Assuming that the total HH income was the only mode of meeting expenses, the researchers found that expenditure on food accounted for almost 51 percent of the total household expenses in the case of HIV/AIDS HHs and about 37 percent in the case of the CGr. The figures for HIV/AIDS HHs is alarming because 71 percent of HIV/AIDS HHs depend partly or fully on others for free food, as opposed to only around 5.5 percent in case of the CGr. This indicates two aspects of HIV/AIDS HHs: i) the low levels of income in HIV/AIDS HHs (MW-U test found significant differences in total annual HH income of the two samples' at the 0.01 level); and ii) expenses on food cannot be compromised with, as the very nature of the disease/care/treatment demands the consumption of nutritious food. The corollary impact of high food expenditure in HIV/AIDS HHs: (i) very little income left for non-food expenses or savings, due to which consumption in general declines; and (ii) HHs are often forced to depend on sale/liquidation of assets/property, borrowings, and even ‘unrequited and/or unrevealed income’ (UUI) to generate resources to meet the minimum basic requirements.

Notwithstanding the higher proportion of food expenses vis-à-vis total HH income in HIV/AIDS HHs as compared to the CGr, the same is though not a reflection that per capita food expenditure is likewise high. On the contrary, while per capita monthly food expenses were only 698 rupees approximately for members belonging to the HIV/AIDS HHs sample, the corresponding figure was relatively better at 741 rupees for CGr members despite there being more members in the sample. A comparison of HH food expenses also shows that non-HIV/AIDS HHs spend more than their counterparts; while monthly food expenses were about 2,632 rupees per HIV/AIDS HH, the figure was higher at 3,314 rupees per non-HIV/AIDS HH, with MW-U finding the differences significant at the 0.01 level (U = 13243; p=.000). Incidentally, for comparative purposes, if the monthly HH food expenditure is added to the regular monthly HH consumption expenditure (inclusive of heads like fuel/water, house-rent, electricity, entertainment, cable/dish TV, travel, toiletries, phone, alcohol, tobacco products and so on), the monthly expense distribution will be such that the food component forms the largest chunk in both samples with the same being higher at 61.04 percent in non-HIV/AIDS HHs, as compared to 53.23 percent in HIV/AIDS HHs.
The relatively unknown and rarely documented dependence on 'partly/fully-sponsored' food is another indicator of the financial strain that the HIV/AIDS HHs undergo. As mentioned earlier, about 68 percent of the sample received 'partly-sponsored' food which includes receiving free food items once a month from NGOs;10 free meals at the work-place (for example, house-maids and those working in hotels/restaurants); and/or getting somebody to pay/reimburse part of the food expenses every month. Those who were unable to spend any money on food comprised three percent. In comparison, while only 5.5 percent of the sample of non HIV/AIDS HHs got the benefit of 'partly-sponsored' food, there were none depending on 'fully-sponsored' food.11 To put things in perspective, while less than one-third of the sample HIV/AIDS HHs did not depend on external sources for food-assistance, the corresponding figure was a huge 94.5 percent in case of the CGr. The chi-square test performed to find whether the 'nature' of food (that is, whether 'partly/fully sponsored' or purchased entirely at own cost) consumed by HIV/AIDS HHs was independent of gender, found a significant association at the 0.01 level between the same \[\chi^2 = 14.572, \text{df} = 1, p = .000\], with FH-HHs being more dependent on 'partly/fully-sponsored' food.12

Table 2 highlights the monthly food-expense slabs of the two samples. While 17 percent HIV/AIDS HHs spent up to 1,000 rupees during the last one month on food, including six percent of the total sample which spent only up to 500 rupees (the latter category includes the 3 percent HHs which got their food 'fully-sponsored'), the corresponding figure was only one percent in case of the CGr. While majority of the respondents from both samples spent between 1,001-5,000 rupees per month, the figures were as high as 92 percent for non-HIV/AIDS HHs, and a relatively lower figure of 77 percent for HIV/AIDS HHs. Interestingly, while chi-square test did not find any significant association between gender of the HIV/AIDS HHH and monthly food-expense slabs at even the 0.1 level, despite redoing slabs13 \[\chi^2 = 2.416, \text{df} = 3, p = .491\]; in case of the CGr though, it found significant association at the 0.01 level, \[\chi^2 = 15.775, \text{df} = 3, p = .001\].14 These findings were also corroborated by MW-U results: while no significant difference in monthly food-expenses were found based on gender of the HIV/AIDS HHH even at the 0.1 level \[U = 4264.5; p = .142\]; there were differences at the 0.01 level in case of the CGr \[U = 2472; p = .001\].

That there is neither association nor difference between gender and monthly food-expenses in HIV/AIDS HHs, is an important finding of the present study. This is despite FH-HHs having significantly lower
total annual HH income in comparison to male-headed [MH] HHs.¹⁵

The absence of gender-based association/differences in HIV/AIDS HHs can be explained as thus: i) Unlike MH-HHs who buy food at own cost, FH-HIV/AIDS HHs depend more on ‘partly/fully-sponsored’ food; ii) FH-HHs depend significantly more on UUI to generate income;¹⁶ and iii) although no significant association was found between gender and coping mechanisms used by HIV/AIDS HHs, a number of HHs including FH-HHs found alternative methods for augmenting their income—wife/HIV+ female respondent ≤16 years / >60 years taking up additional employment. However, in the CGr, the first two findings were in line with HIV/AIDS HHs in terms of gender-association.¹⁷ The third factor was absent in the CGr.

TABLE 2: Comparative Monthly Food-expense Slabs

<table>
<thead>
<tr>
<th>Food-expense slabs in rupees</th>
<th>HIV/AIDS HHs#</th>
<th>Non-HIV/AIDS HHs##</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MH-HHs</td>
<td>FH-HHs</td>
</tr>
<tr>
<td>Up to 500</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>501-1000</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>1001-2,500</td>
<td>49</td>
<td>37</td>
</tr>
<tr>
<td>2,501-3,500</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>3,501-5,000</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>5,001-7,500</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7,501-10,000</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Above 10,000</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>83</td>
</tr>
</tbody>
</table>

Note: ^ Food-expenses of the two samples' were significantly different at the 0.01 level [p = .000].

# There was no significant difference in food-expenses based on gender of the HHH at the 0.1 level [p = .142].

## There was significant difference in food-expenses based on gender of the HHH at the 0.01 level [p = .001].

* Includes 6 HHs which do not spend a single rupee on food but which have their food ‘fully-sponsored’; of these 4 were MH-HHs and 2 FH-HHs.

The researchers did a correlation analysis between total HH income and total monthly food-expenses to understand why gender of the HHH does not have any significant association with monthly food-expenses in a HIV/AIDS HH, which is not the case in the CGr. While there was a
positive correlation at the 0.01 level of significance between the two in both samples', the same was relatively smaller in case of HIV/AIDS HHs, and higher in the non-HIV/AIDS HHs. This indicates that if a male head of the family dies in non-HIV/AIDS HHs, the income is reduced and so also substantially the food expenses since the spouse (unlike in FH-HIV/AIDS HHs) generally does not seek employment or additional employment to meet food and other expenses of her family. Here, one must remember that, most of the female-heads in the sample come from low socioeconomic backgrounds and have no access to food subsidies. However, even though there is a positive correlation between the variables in HIV/AIDS HHs, the impact on female heads is less severe, as they have access to ‘partly/fully sponsored food’ and UUI.

About 77 percent of the sample HIV/AIDS HHs admitted to a perceptible drop in HH food consumption after the detection of HIV. They admitted to compromising on food expenditure due to paucity of funds. Chi-square analysis found a significant association at the 0.05 level between gender of the HHH and drop in food-consumption after HIV-detection due to financial inadequacies \( \chi^2 = 5.846, \text{df} = 1, p = .016 \), and the same was to the disadvantage of FH-HHs. An HIV+ person, who was strictly advised by doctors to eat at least a packet of ‘Tiger’ brand glucose biscuits available for 5 rupees was unable to buy them on a regular basis. In another case, despite NGOs providing bags with free food-items, a person was found to be living with extremely low levels of food intake as s/he was too frail to carry the provisions from the NGO centre.

Some HHs avoided milk consumption to reduce/adjust expenses. Individuals, including babies/toddlers in the age group of 1–36 months, were deprived of (purchased) milk and were instead given black tea, often without sugar. Consumption of other poultry/dairy products, fruits, meat, and so on was either absent, or at best restricted to rare occasions. While a number of HIV/AIDS HHs had members who had already committed suicide, a number of HIV+ sample respondents had failed in their own suicide bids. A few were contemplating doing so again if things did not improve. That HIV/AIDS causes food related hardships to a much larger section of affected HHs can be seen from the fact that besides the 77 percent HHs which admitted drop in food consumption due to financial inadequacies, of the remaining 23 percent HHs which claimed no fall, 34.8 percent (16 HHs) actually depended on ‘partly-sponsored’ food on a regular basis.
Incidentally, all those needing nutritional support do not always get support from NGOs. Numerous field-interactions revealed that a number of HIV+ individuals were denied monthly nutritional support as they had a relatively good CD-4 count. In addition, many HHs who did not possess ration cards were deprived of subsidised food and other items like kerosene available under the State controlled Price Distribution System (PDS); some HHs, however, tried to borrow ration-cards from others families. It is another matter altogether that the benefits availed by those with ration-cards was insufficient to meet actual HH needs. When the Government of Goa announced plans for providing 1,000 rupees per month to all HIV+ individuals on Anti-Retroviral Therapy (ART) in 2008, instances were recorded of infected persons consciously reducing their CD-4 count to <200 (Nair, 2008: 1).

In addition to HIV care/treatment, improved dietary intake is essential to regain lost weight after an opportunistic infection [OI]. As nutrition expert Dr. P. Nemapare says, “Proper nutrition is the best frontline drug for AIDS” (Singhal and Rogers, 2006: 125 and 156–157). Good nutrition and medical care can increase physical strength and delay the onset and frequency of OIs. A person who can afford two square meals a day along with quality medical care (whenever OIs take place) can live for several years even without ART, and with those on ART having proper nutrition/medical care being able to increase their life span by 20 years or more. Nutritional intervention studies suggest that early improvements in energy and protein intake of HIV+ persons can help build their reserves and reduce vulnerability to OIs (Gautham, 2008: 1). The nutritional interventions are a must, especially for young children, orphans and mothers (Medhini and others, 2007: 1085). Nutritional status in turn can affect the efficacy of ART treatment and also the patient’s ability to adhere to the treatment regime (HRLN, 2008: 153). The present study revealed that despite advise on the importance of proper nutrition, about 68 percent did/could not purchase appropriate/recommended food. The chi-square test revealed a significant association at the 0.05 level between gender of the HHH and extra money spent on purchasing additional food as recommended ($\chi^2=4.073$, df=1, $p=.044$). Of the 32 percent respondents who spent extra on food, the expenses on food ranged from 40–1,500 rupees. These figures translated to 460 rupees on an average per month for the 64 HHs who spent additional amounts on food; and 157 rupees per month for all the HHs in the sample.
CONCLUSION

HIV/AIDS HHs are at a significant disadvantage vis-à-vis food consumption as compared to their non-HIV/AIDS counterparts. While lower HH incomes makes HIV/AIDS HHs spend a greater proportion of their HH income on food, amounts spent on food per capita, per HH, and/or as proportion of total consumption expenditure are substantially lower in the CGr.

Though there was gender-based association in the CGr between food-expenses and gender of the HHH to the disadvantage of FH-HHs, the association was gender-neutral in case of HIV/AIDS HHs despite FH-HHs having significantly lower HH incomes.

FH-HIV/AIDS HHs make up their annual HH income disadvantage by depending significantly more on ‘partly/fully sponsored’ food and UUI (all of which are inconsequential in the CGr).

Despite gender-neutrality vis-à-vis mean food-expenses, it is FH-HIV/AIDS HHs that have significantly: (i) experienced noticeable fall in food-consumption since HIV-detection; and (ii) been unable to spend extra on purchase of appropriate food as per medical advice.

NOTES

1. South Goa, one of Goa’s two districts, is amongst the high-prevalence districts in India (*The Times of India* 01/12/2008, 7).
2. For example, women may be forced to take up transactional sex to feed families.
3. Due to lowering of immunity, compromising of gut/genital mucosal integrity, besides increasing vertical transmission rates among pregnant/lactating women.
4. Though the former is necessary, it is insufficient for ensuring the latter—which is achieved for a HH when secure access to food is coupled with a sanitary environment, adequate health services and care to ensure a healthy life for all members.
5. While 68 percent depended ‘partly’, 3 percent depended ‘fully’ on others. (U= 9143.5, p=.000).
6. Mean total annual HH income was 63,126 rupees per HIV/AIDS HH, and 1,07,280 rupees for the CGr.
7. This excludes the significantly high medical expenses present in HIV/AIDS HHs which when factored-in depresses non-medical/non-food consumption even further.
8. Term coined to signify amounts raised via unrequited income and/or through unrevealed modes inclusive of dubious sources/activities like prostitution, gambling and petty crime.
9. Interestingly, while in the HIV/AIDS HHs sample the minimum amount spent per month on food was nil, the maximum amount was 14,000 rupees. The maximum figure was lower at 10,500 rupees for the CGr.
Some NGOs, as per their institutional norms, provide every month a bag of essentials, valued between 300–350 rupees, comprising items like rice/wheat, dal, sugar/jaggery, flour, small Horlicks and/or Dettol bottles and so on. Some HIV/AIDS HHs having ≥2 HIV+ members are entitled at times to more than one bag. To alleviate hardships many HIV+ members often go to more than one NGO for the free food bags every month.

Minimum amount spent on food by the CGr was Rs. 1,000 per month.

Though FET results in case of the CGr also showed significant association at the 0.01 level (p=.005), the same is inconsequential as a whole due to the extremely less number of non-HIV/AIDS HHs dependent on partly/fully sponsored food.

Post-redoing, slabs were reduced to four: ‘up to 1000’; ‘1001–2500’; ‘2501–3500’; and ‘>3500’(figures in rupees).

This association is not unreliable despite 25% cells having expected count <5, since even by further redoing a similar association was also found (χ²=11.465, df= 2, p=.003).

There was significant difference (U=3223, p=.000) and association (χ²=20.192; df=3; p=.000) at the 0.01 level vis-à-vis total annual HH income and gender with regards to HIV/AIDS HHs, wherein it was the FH-HHs which constituted the lower income HHs.

While there was significant association found at the 0.01 level between gender and whether resorted to UUI during the year (χ²=9.255; df=1; p=.002), there was also significant difference in mean amounts raised via UUI based on gender of the HHH (U=3852; p=.010).

While 58.5 percent of the total HIV/AIDS HHs depended on UUI, the figure was only 5.5 percent in case of the CGr.

Sig.(2-tailed)= .000.

Kendall’s tau_b corr. coeff.= .483; Spearman’s rho corr. coeff.= .634

Kendall’s = .675; Spearman’s = .833

Under the broad dual assumptions confirmed by field-observations, male-heads were generally employed and that it is the spouse/woman who usually heads the HH in the eventuality of death of the male-head/husband.

Drop in food-consumption due to other reasons like lack/fall in appetite on account of illness/ongoing medical treatment, and so on, has not been considered.

While 85.5 percent FH-HHs affirmed drop, the figure for MH-HHs was lower at 71 percent.

Usually, as a precaution against mother-to-child-transmission of HIV post-delivery, HIV+ mothers are recommended not to 'nurse' new-born babies.

Some NGOs provide nutritional support to only those whose CD-4 count is below a particular minimum.

All hardships cited herein vis-à-vis food were those experienced prior to the steep double-digit food-inflation which engulfed the nation post-data collection; food-inflation can only fuel hardships further.

Besides weakening the immune system further, these attempts endanger lives and put individuals to greater vulnerability of opportunistic infections.

At the time of conducting the present study only those with CD-4 count ≤200 were put on ART.
29. Over three-fourths of the FH-HHs were unable to purchase extra as per advice. While 37.6 percent MH-HHs spent extra, the figure was only 24 percent for FH-HHs.

30. Extra refers to over-and-above regular no HIV scenario nutrition standards.

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