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Project
"Community social protection and income security for HIV vulnerable and HIV positive households in selected communities of Cambodia"

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# Community Social Protection and Income Security for Households Experiencing Major Illness Including HIV/AIDS in Selected Communities around Phnom Penh

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# Abbreviations

| | |
|---|---|
| ARV | Anti-retroviral |
| CAAFW | Cambodian Association for Assistance to Families and Widows |
| CAS | Center for Advanced Study |
| CBHI | Community-based health Insurance |
| CDHS | Cambodia Demographic and Health Survey |
| CRC | Cambodian Red Cross |
| CSES | Cambodia Socio-Economic Survey |
| CWPD | Cambodian Women for Peace and Development |
| EU | European Commission |
| GRET | Groupe de Recherche et d'Echanges Technologiques |
| GTZ | German Technical Corporation |
| HEF | Health Equity Fund |
| HIV/AIDS | Human/Acquired Immuno-deficiency Virus/Syndrome |
| ILO | International Labour Organization |
| MoH | Ministry of Health |
| MoPoTsyo | Patient Information Center |
| NGO | Non-governmental Organization |
| NIS | National Institute of Statistics |
| OI | Opportunistic Infection |
| POVILL | Protecting the Rural Poor against the Economic Consequences of Major Illness: a Challenge for Asian Transitional Economies (EU) |
| PSF-CI | Pharmaciens sans Frontières – Comité International |
| RHAC | Reproductive Health Association of Cambodia |
| SHI | Social Health Insurance |
| SKY | *Sokapheap Krousar Yeung*, 'Health for Our Families' (GRET) |
| SPSS | Statistical Package for the Social Sciences |
| STI | Sexually Transmitted Infection |
| USG | Urban Sector Group |
| VCCT | Voluntary Confidential Counseling and Testing |
| WHO | World Health Organization |

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# Executive Summary

The poverty rate in Cambodia is considered to be among the highest across developing countries, with 35% of the population still living below the poverty line of less than of US$0.46-0.63 per day (CSES 2004). Poverty in Cambodia, as elsewhere, has many causal factors, one of which is health. Most health-related expenditures relate to out-of-pocket payments. Cambodia has the world's highest out-of-pocket rate as a proportion of total health expenditure, at 70.6%. The poor spend more resources on health and suffer more poverty as a result (MoH 2003).

Evidence has shown that borrowing money is one of the coping mechanisms for poor households when confronting health care costs. Other mechanisms for coping with health care costs among poor households include selling of assets, such as land, animals or equipment used for livelihoods, and cessation of income-generating activities.

In Cambodia, with regard to access to health care, the following situation prevails: i) there is no formal social health insurance (SHI) scheme; ii) community-based health insurance (CBHI) schemes are now available in a few areas of Cambodia; iii) user fees have been in place for health care since 1997; and iv) Health Equity Funds (HEF) schemes are available in some areas to cover user fees for the direst needs of the poorest groups.

Although a fair number of initiatives are addressing HIV/AIDS in Cambodia, assistance is still required for people vulnerable to and/or living with HIV/AIDS, in terms of their access to health care. Whatever the costs, people living with AIDS need treatment for opportunistic diseases; people vulnerable to HIV and AIDS need to remain healthy.

Other problems faced by people with vulnerability to or living with HIV/AIDS include access to livelihoods, productive resources, homecare or programs helping children orphaned by HIV/AIDS, etc. Problems in these areas often generate social exclusion, stigma and stress for families, homelessness of children, child labor and – last but not least – poverty.

## Objectives

The present study aims to enable a better understanding of the role of the extension of social protection in health for poor households living in poor communities on the outskirts of Phnom Penh city, in Russei Keo district, examining socioeconomic impacts: for households that suffer from major illness in general, and for households that are HIV and AIDS vulnerable or positive in these communities in particular. By way of a quantitative and qualitative survey, the study attempts to document for the target population needs in terms of social protection and its probable impacts, with regard to: i) access to health care as a primary social protection mechanism; ii) access to HIV-related services; and iii) access to resources for livelihoods.

## Methodology

This is a retrospective study, using both quantitative and qualitative research methods to collect data at the household level. The quantitative component consisted of a survey of households in low-income communities in Russei Keo district. The qualitative component utilized in-depth interviews of key decision makers within households, who were identified through the household survey as having high levels of needs for social protection related to health care costs.

For the quantitative survey component, a household sample was selected using simple randomized techniques. A total of 389 households were interviewed. For the qualitative

study, participants were selected after completion of the household survey. Since the purpose of the in-depth study was to obtain detailed information on issues of migration, knowledge and access to HIV/AIDS services and the socioeconomic impact on households with major illnesses, 30 households were selected based on these particular criteria: 10 migrant households; 10 households where there were people living with HIV; and 10 households with family member/s who had suffered a serious illness over the past year.

All data were entered, coded and cleaned in-house. Pearson Chi-square tests were used to test relationships between different variables. The qualitative data were analyzed to look for themes and patterns emerging from the interviews. The findings from the qualitative data were then used to build cases for the quantitative data collected in the household survey.

Community feedback meetings were also organized at the end of the exercise to obtain households' feedback and consensus among people in the community on the findings and issues emerging from the study.

## Findings

The findings of this study show that, among the population in Russei Keo district (peri-urban), the level of poverty is not as high as in rural areas but is slightly higher than in the main urban area. We define household poverty status using a poverty ranking which is obtained by giving a poverty score based on five different household conditions. A relatively high proportion of the population was found to have incurred debt over the past year, especially among the poor: almost half had borrowed money from a variety of sources, such as moneylenders, friends and relatives, to pay for health care. Many have still not paid off their debts at the time of writing. Almost none of the households have access to formal loans.

There are insufficient quantitative data on the migrant population in this study, owing to the nature of random sampling, so we have no quantitative data on remittances to families living in the villages. However, the qualitative part of the study reveals that some families that have moved to Phnom Penh still have family members living in their home village, especially elderly parents or young children still in school. Phnom Penh families regularly send money back to the village to support their family's basic needs.

### *Impact of serious illness*

In this study, we define serious illness as: health problems that lead to hospitalization; chronic health problems requiring substantial care and treatment; and illness with major impacts on a household's economic burden owing to high health care costs. In the survey, more than 10% of households reported suffering from serious illness over the past year.

The study found a significant difference between males and females, but no significant difference between non-poor (11.2%) and poor (11.6%) with regard to suffering from serious illness ($P<.831$). However, in terms of illness in the past month, it was found that poor households suffered more acute illnesses than non-poor households. The situation was reversed for chronic diseases: the non-poor had a higher proportion of chronic diseases than the poor. Respiratory infections were the most prevalent type of acute illness; hypertension was the most commonly reported chronic diseases. Other commonly reported health problems were stomach pains and physical weakness. Such conditions have no clear diagnosis, but people complained that they impacted working ability and cost substantial amounts of money for treatment. People often consider such conditions chronic.

### *Access to financial support for households with serious illness*

In term of access to hospital care for serious illnesses, this study found that about 30% of those who reported suffering from serious illness over the past year had received inpatient

care. The most important reason for not seeking inpatient treatment for serious illness was cost. This was the case for 60% of those surveyed. However, it was found that the proportion of people receiving inpatient care was higher among the poor than the non-poor. From the in-depth study with households experiencing serious illness in the past year, we found that households spent a great deal of time and money shopping around, going from one private clinic to another, sometimes ending up with different diagnoses before finally deciding to get hospital care.

The majority of people (46%) spent between one and five days as an inpatient. About 6% received inpatient treatment for more than 60 days.

Households with a family member suffering from major illness spent most resources on treatment at private clinics and on purchasing medicine at pharmacies. For serious illnesses, we found that 21.5% of households had spent between US$50 and US$150, and 21% more than US$250 on medical treatment over the past year. Interestingly, there is no difference between the non-poor and the poor in terms of the total amount of money spent on such treatment. This means that the poor end up borrowing to pay for health care.

### *Access to social and financial support from informal and formal sources*

More than 10% of households with family members suffering from serious illness had lost a great deal of working time, which had a great impact on household income generation. It was also found that more than 20% of household members spent more than one month caring for the person suffering from the serious illness. This also has implications for household income generation. Only in around 5% of cases did other family members spend time doing the productive work of the ill person, although this figure was at 30% for housework. In terms of impact on children's schooling, it was found that a small proportion of affected households (5.1%) had taken their children out of school to help with care for the sick person. Among these households, 10 were non-poor and three were poor; no clear explanation was available for this. One possible reason is that non-poor households try to avoid losing income, a situation that arises when an adult income earner is taken away from work to care for a sick person.

The majority of respondents, that is, 86.6% among poor and non-poor households, paid for health care from their savings. More than 50% of households paid from their wages. A small proportion of non-poor households sold assets. About 20% of all households reported having borrowed money to pay for medical costs. Poor households were more indebted than non-poor for health care reasons ($P<.000$). Sources for borrowing money were mostly informal, such as moneylenders in the community and relatives. Only two households in the study had borrowed money from a formal source (ACLEDA Bank). The qualitative data show the main source of money as out-of-pocket, or help from relatives, including loans without interest. Of 113 respondents, 81 (73%) highlighted the financial support of family and relatives. As such, the family is an important source of social protection. In many cases, this could mean that poverty is spreading out among family members, as everyone needs to contribute to health care instead of keeping money for their own needs.

In terms of financial assistance from official sources, it was found that a small proportion of households had received assistance from formal sources, either government or NGO; about 13% had received exemption and about 19% had received assistance from an NGO, usually Khemara, to help with health-care related costs.

### *Access to the social protection mechanism: CBHI*

In the household survey of 389 households, only six claimed to be members of CBHI. Of these, two paid for this by themselves and four were paid for by the local authorities, as they were considered poor households. When asked in a community feedback meeting why only

a few households held CBHI, most participants simply stated that they did not know about it and that there was no clear information or explanation available regarding how to become a member. As presented in Box 3 in the body of this report, households pay substantially more for health care out of pocket than they would for CBHI membership. If households paid for CBHI membership on a monthly basis over a year, they would not end up paying so much for medical treatment at one point in time and would not end up in debt, especially poor households. Information gathered from the community feedback meeting indicated that people wanted CBHI membership and were willing to pay for it. Barriers included lack of information on where to get membership, unclear knowledge on the benefits of being a member, and lack of a clear mechanism for reimbursement.

Based on information on out-of-pocket health care costs, as provided by households during the survey and compared with the potential costs of contributions to CBHI for the same households, savings of between 30% and 50% could be made. Furthermore, holding CBHI would allow households to access treatment quickly from a certified medical facility, rather than 'shopping around' and waiting for appropriate treatment. Thus, CBHI is advantageous for households, as costs are lower and as it allows access to health care **when** people need it rather than when they have waited until money is raised within the family or borrowed from elsewhere. Furthermore, as CBHI makes contractual arrangements with public health care facilities, this contributes to reinforcing the role of the public sector, quality of health care and financing of public health care facilities.

### *Access to and use of HIV services*

This study also focuses on knowledge on the availability of and access to services for HIV/AIDS. In general, all respondents had heard of or knew a place for HIV/AIDS testing. More than half cited national hospitals in Phnom Penh, although private clinics were also mentioned.

Knowledge on medical treatment for HIV/AIDS was also found to be high among all respondents: 73% knew about availability of treatment, although only 26% knew where to access treatment. The three national hospitals cited as providing treatment included: the Russian Friendship Hospital, Calmette Hospital and Preah Kitomalea Hospital. Data obtained from the in-depth interviews indicate that people have learned about and accessed HIV/AIDS treatment through Khemara, which facilitates referrals to appropriate treatment centers. All 10 households in the in-depth study received medical assistance from different NGOs, including Khemera, the Cambodian Red Cross (CRC), *Khossor* and Pharmaciens sans Frontières – Comité International (PSF-CI). Types of social care and assistance received include food (rice, salt, fish, etc.), clothes, a monthly allowance, microcredit for small business, money for transportation (6,000 Riel) for monthly follow-up visits and, most importantly, home-based care. Most participants were satisfied with the assistance they received. A few complained about the irregularity of the support.

However, seven out of these 10 participants said the condition had disturbed ability to work. Five had stopped working as a result. The qualitative data showed that seven out of the 10 households with an HIV positive member were in debt for health care reasons. One reason for this was that households did not have any health protection, e.g. access to a HEF or CBHI. Only one household had CBHI membership, from SKY – *Sokapheap Krousar Yeung* ('Health for Our Families') Insurance Program. Without protection, such households can fall into or get deeper into poverty as a result of health care costs.

## Conclusion

The results of this study show that more than 10% of households, both poor and non-poor, living in Russei Keo district on the outskirts of Phnom Penh city have suffered from major illness over the past year. The socioeconomic impacts of major illness upon these

households include: high expenditure for health care; delayed treatment owing to lack of financial means; falling into debt because of health care costs; and loss of income owing to the severity of the illness. The main financial resource paying for health care costs is in the form of out-of-pocket payments, which come from saving and wages. A high proportion of households, especially the poor, end up borrowing money. The majority of households in the community do not have financial support from official sources for such health care costs. Most rely for support on informal sources, such as family and relatives.

Most people are aware of the existence of CBHI but their knowledge and perceptions of the scheme are still scant. People are still doubtful about how it works. For the scheme to work and be effective, it is important to understand trust within and between communities, health care providers and third-party bodies.

All HIV/AIDS positive households living in the community have access to free-of-charge treatment and some limited social support – from various institutions, not from an integrated program. However, there is little access to a social protection mechanism and livelihood activities, which adds a further burden to households. HIV/AIDS positive households are in debt because of health care costs, despite the free treatment and the social care and assistance they receive. As a result, they are still in need of financial support from informal sources, such as relatives. They are paying more out of pocket than they would have to pay for CBHI, and are falling into or getting deeper into poverty owing to health care costs.

# 1. Background to Study

## 1.1 Health in Cambodia

Cambodia has a population of 13.6 million, with the majority of the population (more than 84%) residing in rural areas, practicing traditional wet rice cultivation and other forms of agriculture and with poor access to basic services (CSES 2004). The poverty rate in Cambodia is considered to be among the highest across all developing countries; 35% still live below the poverty line of less than US$0.46-0.63 per day (ibid). Rural poverty accounts for almost 91% of total poverty (World Bank 2006). Poverty in Cambodia, as elsewhere, has many causal factors. The two most salient health-related problems that relate to poverty in Cambodia are malnutrition and access to health care (ibid).

Nationwide, out-of-pocket expenses and user fees represent 86% of total health expenditure per capita, or six times more than government expenditures on health.[1] Mean expenditure on health care is US$19.40 per household; 68% of this spending goes towards the private medical or non-medical sector, whereas only 18.5% is spent in the public sector (NIS 2000). This comes primarily from payments to unregulated private practitioners, from unofficial payments in the public sector (Jacobs and Price 2004; Van Damme et al. 2004) and from various participation costs, such as transportation costs (Hardeman et al. 2004). Most health-related expenditure is in the form of out-of-pocket payments. Cambodia has the world's highest rate for out-of-pocket payments as a proportion of total health expenditure, at 70.6%. The poor spend more resources on health and suffer more poverty as a result (MoH 2003).

Evidence has shown that borrowing money is one of the coping mechanisms for poor households when confronted with health care costs. Other mechanisms include selling of assets, such as land, animals or equipment used for livelihoods, and cessation of revenue-generating activities. An Oxfam GB (2005) study found that 44% of people had sold their land to pay for health care. Catastrophic health costs can easily represent 50% of a household's annual non-food consumption (NIS 2000). These CDHS 2000 data show that 45% of patients borrow money to meet the expenses of hospital treatment, which averages at US$65 for a serious illness (Ibid).

The poor population underutilizes public services: less than 60% of the poor who are in need of health care use health services, as compared with 74% of better off people (CSES 2004). Barriers related to accessing health care for the poor include: physical access (distance, condition of roads); ability to pay (for care, transport and food); knowledge and information about availability of assistance schemes; personal beliefs and perceptions of need and quality of health care; lack of trust in public health care facilities; and socio-cultural practices surrounding health and treatment.

As such, barriers to health care access are multidimensional. The financial aspect has been one of the major barriers for the poor and poorest in accessing quality health care services. Financial difficulty in accessing health care often results in either: i) waiting to obtain treatment – generating higher costs as the disease becomes more serious; or ii) waiting in the hope that the disease will disappear. Studies show that 50% of those who receive treatment earlier do not need subsequent hospitalization. This has a positive impact on family income, as work interruptions are shorter or non-existent and as the medical costs associated with a prolonged illness are brought down. From a rights-based perspective, accessing health care on a timely basis is part of the fundamental right to life and health.

[1] Out-of-pocket expenses are expenses paid directly by users and not covered by insurance or other provisions (World Bank 2006).

## 1.2 Social health insurance as a means of social protection

Financial barriers to accessing health care for the poor include: i) direct and indirect costs of health services (including fees, travel, food); ii) unpredictable informal (and formal) charges in public facilities; iii) opportunity costs for users owing to use of time; iv) lack of a system of phased or deferred payments; and v) limitations of exemption schemes (i.e. user fees) to protect all the poor.

In Cambodia, with regard to access to health care, the following situation prevails: i) there is no formal social health insurance (SHI) scheme; ii) community-based health insurance (CBHI) schemes are now available in a few areas of Cambodia; iii) user fees have been in place for health care since 1997; and iv) Health Equity Funds (HEF schemes) are available in some areas to cover user fees for the direst needs of the poorest.

As Cambodia is a poor developing country with an under-resourced health system, several health financing systems have been tested or pioneered, such as the user fee system; subcontracting of government health service delivery to non-government providers (contracting); and CBHI and HEF schemes.

Among these, the HEF has recently been considered an important component of the National Health Sector Strategy 2003-2007 (MoH 2006). HEFs are considered an alternative health financing strategy to help the poor and poorest access public health services through partnership between government and NGOs (MoH 2003). HEF strategies attempt to improve access to health care services for the poorest by paying the provider on their behalf, acting as a third-party payer.

Along with the recent push for a national scale-up of the HEFs, the Ministry of Health (MoH) is also in the process of developing SHI as another alternative health financing strategy to reduce the impact of major health problems and to prevent people from falling into poverty.[2] The government of Cambodia now recognizes the potential of SHI as a major health care financing method for the future. Some broad policy guidelines and approaches for SHI have been designed by the World Health Organization (WHO), in collaboration with the MoH. Now, a specific guideline for CBHI is being developed by the MoH in collaboration with the WHO and German Technical Cooperation (GTZ), drawing input from key players (MoH 2006).

A Social Health Insurance Forum was organized in December 2006, at which the government reiterated its commitment to SHI. The key international players working with the government on this issue are: the WHO, GTZ, the International Labour Organization (ILO) and Groupe de Recherche et d'Echanges Technologiques (GRET), a French NGO which has progressively initiated CBHI in rural areas and in Phnom Penh in the past few years. Several local NGOs have promoted CBHI schemes of various natures, including SKY – *Sokapheap Krousar Yeung* (‘Health for Our Families’), which has support from GRET and CAAFW in Banteay Meanchey.

[2] There are three approaches to SHI in Cambodia: i) compulsory SHI through a social security framework for salaried public and private sector workers and their dependents, through addition of health care to the Social Security Law passed in 2002 and administered by the National Social Security Fund; ii) voluntary insurance through the development of CBHI schemes sponsored by different development partners, national NGOs (in the initial stage) and health care providers, for non-salaried workers' families that can contribute on a regular basis – SHI for this sector should include all family members registered in the Cambodian family book; and iii) social assistance through use of equity funds and later government funds to purchase health insurance for non-economically active and indigent populations.

## 1.3 Socioeconomic impact on households vulnerable to or affected by HIV/AIDS

Although many initiatives are addressing HIV and AIDS in Cambodia, assistance is still required for people vulnerable to and/or living with HIV/AIDS, regarding access to health care. A recent World Bank poverty assessment in Cambodia (2006) states that the two 'most salient health-related problems that relate to poverty in Cambodia' are malnutrition and access to health care. In the case of HIV/AIDS this situation is exacerbated, as malnutrition and health care act directly on capacity to cope with increased vulnerability.

Whatever the costs, people living with AIDS need treatment for opportunistic infections, and people vulnerable to HIV/AIDS need to remain healthy.

Other problems faced by people with vulnerability to or living with HIV/AIDS include access to livelihoods, productive resources, homecare and programs helping children orphaned by HIV/AIDS, etc. Problems in such areas often generate social exclusion, stigma and stress on families, homelessness for children, child labor and – last but not least – poverty.

# 2. Study Objectives and Methodology

The Rockefeller Foundation, which has supported this study, has been very active in terms of HIV-related programs at community level. It supports community organizations such as Khemara and Cambodian Women for Peace and Development (CWPD). This study is part of an ILO-Rockefeller Foundation knowledge development and sharing initiative on social protection for HIV vulnerable and positive households: 'Community Social Protection and Income Security for HIV Vulnerable and HIV Positive Households in Selected Communities of Cambodia'.

The initiative's activities started in the last quarter of 2005. A feasibility study on the inclusion of HIV vulnerable and positive households in CBHI schemes was carried out at the end of 2005 and an awareness seminar was also held at that time on SHI, its operations, benefits and obligations, the role of different partners, etc. The feasibility study indicated that, from an organizational and sustainability perspective, these target populations could be included in CBHI schemes without endangering the schemes' stability. The awareness seminar created much more interest than anticipated. As a result of the study, the SKY CBHI scheme is now expanding to cover HIV vulnerable and positive households in the Phnom Penh area.

## 2.1 Study objectives

The present study aims to better understand the role of the extension of social protection in health for poor households living in poor communities on the outskirts of Phnom Penh city, examining socioeconomic impacts: on households that have suffered from major illness in general, and on households that are HIV/AIDS vulnerable or positive in particular. By way of a quantitative and qualitative survey, the study attempts to document needs in terms of social protection and its probable impacts on the target population with regard to access to:

- Health care as a primary social protection mechanism;
- HIV-related services;
- Resources for livelihoods.

The study also looks at the ongoing social insurance initiative in the communities[3] by helping to identify the extent to which community members are aware of it, their perceived need for it and perceived barriers to their participation.

## 2.2 Study methodology

This is a retrospective study, using both quantitative and qualitative research methods to collect data at the household level. The quantitative component consisted of a survey of households in low-income communities in Russei Keo district on the outskirts of Phnom Penh city. The survey used face-to-face interviews. The qualitative component utilized in-depth interviews of key decision makers within households who were identified through the household survey as having high levels of need for social protection related to health care costs.

### *2.2.1 Study sites*

Russei Keo district was selected as the study site because it is an area where Khemara has been operating for a decade, assisting poor communities in various projects. This was the very first local NGO, founded in 1991, to play a pioneering role in working for the advancement of women and children. Working initially in the semi-urban district of Russei Keo, Khemara's strength as an organization comes from community-based programs that

[3] SKY CBHI is now available in the communities where Khemara operates.

address the needs of poor villagers, especially women and children. Specifically, it works on: promotion of basic rights to education, health and livelihoods; protection from domestic violence; prevention of HIV/AIDS and sexually transmitted infections (STIs); and reproductive health and gender. Khemara has been working in 21 villages and is now initiating work with another 24 communities. It has started a program of community awareness and social marketing, with a well established CBHI scheme managed by GRET, with the intent of facilitating access for their community networks to the health insurance scheme. Households included in these communities largely comprise low-income families and include a large number of migrant households, made up of different ethnic groups: both Khmer and Cham households reside in these communities.

In Russei Keo, two communes, Russei Keo and Kilo Lach 6, were identified for the study. Seven villages were selected from these two communes: Mithapheap, Boeung Salang, Khlang Sang, Samaki, Kroal Kao, Boeung Chhouk and Spean Kpos. All households within these communities were eligible for selection for the study. This was based on the premise that all households could be considered vulnerable to HIV.

### *2.2.2 Sample selection*

**Sample for household survey**

For the quantitative survey component, the household sample was selected using simple random techniques. The sample frame was created by making a list of all households in selected villages, asking village leaders to provide names of all permanent residents and, if possible, of all migrant families in the area. One of the problems in including migrant households was the fact that they are not registered on the commune roster, and that they are constantly on the move. Once the complete list of households in the area was available, a proportional sampling technique was used to select households from each village. As the study is primarily descriptive and provides estimates on a range of variables, we have calculated sample size based on the following conservative assumptions. For a population proportion whose true value in the population is 0.50, we wish to obtain a sample estimate that is within 0.05 of the true value. Based on systematic random sampling and a 95% confidence interval, the required sample size is 396. We rounded this up to 400 for the study, which ensures a reasonable level of precision on estimates of vulnerability.

In total, 389 households were included in the study: 11 (0.97%) households were no longer living in the area. Interviews were conducted with the head of household. No household refused to participate in the study; if the head of household was not at home, particularly the case for migrant households, the researcher had to make a second trip.

**Table 1: Sample selected from each village**

| Selected villages | Sample selected | No. interviewed | No. missing |
|---|---|---|---|
| Mithapheap | 90 | 89 | 1 |
| Boeung Salang | 70 | 67 | 3 |
| Khlang Sang | 50 | 50 | 0 |
| Samaki | 70 | 68 | 2 |
| Kroal Kao | 50 | 45 | 5 |
| Boeung Chhouk | 20 | 20 | 0 |
| Spean Kpos | 50 | 50 | 0 |
| Total | 400 | 389 | 11 |

**Sample for in-depth interview**

The sample for in-depth interview was selected after completion of the household survey. Since the purpose of the in-depth study was to obtain detailed information on migration, knowledge and access to HIV/AIDS services and socioeconomic impacts on households with major illness, a sample of 30 was then selected based on these particular criteria.

Out of the 389 households, only 16 reported living in the area for less than six years; we considered these households migrant households to be selected for in-depth interview.

Only three households reported having family members affected by HIV/AIDS; one household had two members affected by the disease. As we needed at least 10 households for in-depth interview, the additional seven households were proposed by Khemara, which had direct contact with households affected by HIV/AIDS in the communities. With the assistance of Khemara, using informed consent, the 10 HIV/AIDS households were recruited for in-depth interview.

Another 10 households experiencing socioeconomic impacts as a result of major illness were selected based on the following criteria: three with high expenditure for inpatient costs; three with debts because of health care costs; two selling household assets because of health care costs; and two with chronic diseases (diabetes and hypertension).

### *2.2.3 Data collection process*

The household survey collected data on the following: period living in Phnom Penh and community; demography; poverty; health problems and health-seeking behavior; household members with serious health problems; social and financial impacts of illness; knowledge and access to social protection; and knowledge of and access to HIV/AIDS services. The household survey instrument was developed in collaboration with all research partners, to ensure consensus and to determine whether questions reflected the reality in the communities (see Annex 3 for questionnaires). Prior to conducting the study, the Center for Advanced Study (CAS) submitted the survey for ethical clearance to the National Ethical Review Committee, where it was approved.

Enumerators on the household survey instrument were trained by the principal investigator for three days. The instrument was piloted in poor communities near the study sites. Each interview lasted about 45 minutes. The survey took about two months to complete.

The in-depth study was conducted after the household survey was complete and preliminary data analyzed. It focused on three specific interests: i) access to care and treatment among HIV/AIDS households; ii) remittances and access to health services among migrant households; and iii) stories of households having experienced serious illness. Three separate research instruments were designed as open questionnaires, to be used as interview guides for field researchers to collect detailed information. Three skilled researchers were trained on how to conduct the interviews. This took longer than anticipated, given that each instrument was different, containing different themes and approaches. All interviews were recorded and written down, and each one lasted about two hours. Data collection took more than one month, as it was difficult to select households, make appointments and meet with selected households, and as in-depth interviews are by nature longer.

Community feedback meetings were also organized within the study sites. Two meetings were held, with 40 to 50 participants in each meeting. The purpose of the meetings was to present the findings of the survey to the community, in order to obtain feedback and consensus among people on certain issues emerging from the study.

### *2.2.4 Data analysis*

The quantitative data were analyzed using SPSS. All data were entered, coded and cleaned before analysis. Pearson Chi-square tests were used to test relationships between different variables. Qualitative data were transcribed and analyzed to look for emerging themes and patterns. Findings from the qualitative data were then used to build cases or add flesh to the quantitative data collected in the household survey.

# 3. Findings

## 3.1 Socio-demographic information

### *3.1.1 Household characteristics*

For this study, 389 household heads were interviewed, with the households containing a total of 2,276 individuals. Table 2 describes household composition: 2.3% households were composed of a single person, 31.6% households had between two and four family members, 45.0% households had between five and seven, and 21.1% households had more than eight members.

**Table 2: Household composition**

| | Number | % |
|---|---|---|
| 1 member | 9 | 2.3 |
| 2-4 members | 123 | 31.6 |
| 5-7 members | 175 | 45.0 |
| More than 8 members | 82 | 21.1 |
| **Total** | **389** | **100.0** |

### *3.1.2 Sex and age distribution*

Out of 2,276 people, 46.5% were male and 53.5% female. On age distribution, 25.9% were between 16 and 25, 20.5% between 26 and 40, 19% between 41 and 60 years, and a small proportion (6.2%) above 60. The mean age was 27.97.

**Table 3: Age distribution**

| | Number | % |
|---|---|---|
| Less than 6 years old | 211 | 9.3 |
| 6-15 years old | 436 | 19.2 |
| 16-25 years old | 590 | 25.9 |
| 26-40 years old | 467 | 20.5 |
| 41-60 years old | 432 | 19.0 |
| More than 60 years old | 140 | 6.2 |
| **Total** | **2,276** | **100.0** |

### *3.1.3 Education*

A quite high proportion (72.5%) were literate (could read and write): 20.5%, 15.3%, 10.8% and 4.6% completed primary, lower secondary, upper secondary and higher education, respectively. Almost half (48.9%) did not complete formal primary education or had no education but were literate.[4] Slightly more females had no education (42.0% vs. 54.8% male and female, respectively). In general, a higher proportion of males had completed primary, secondary and higher education. This finding is also reflected in the CDHS 2005, which shows that 27% of males have attended secondary or higher schooling, compared with females at 16%.

[4] Although people had not completed formal education they had learned to read and write through informal means, such as in the temple or from family members.

**Table 4: Highest level of education completed**

| | Total N=2,262 | | Male N=1,053 | | Female N=1,209 | |
|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** |
| None | 1,105 | 48.9 | 442 | 42.0 | 663 | 54.8 |
| Primary | 464 | 20.5 | 236 | 22.4 | 228 | 18.9 |
| Lower secondary | 346 | 15.3 | 175 | 16.6 | 171 | 14.1 |
| Upper secondary | 244 | 10.8 | 131 | 12.4 | 113 | 9.3 |
| Higher education | 103 | 4.6 | 69 | 6.6 | 34 | 2.8 |
| **Total** | **2,262** | **100.0** | **1,053** | **100.0** | **1,209** | **100.0** |

When asked in the community feedback meeting why a high proportion (48.9%) of people had not completed primary school or had no education, participants contended that the primary reason for parents deciding to take their children out of school, especially those aged above 15 years old, was poverty: they wanted their children to help earn for the family.

## 3.2 Mobility patterns

When asked how long they had been living in Phnom Penh, the majority of respondents (81.7%) said more than 16 years; 14.1% said between seven and 15 years. Only 4.2% of the respondents said less than six years. In this study, we considered these latter as recent migrants from rural areas to Phnom Penh.

With respect to living in actual communities, 11% of respondents reported that they had been living in their current village for less than six years. This indicates that there has been slightly more movement within the communities. This may be because households rent their home or because people have moved from the inner city to the outskirts of Phnom Penh.

Although we know that the area contains high levels of migrants from rural areas coming to work in the nearby garment factories, only a small number were selected for the study. This may owe to the fact that the sample was selected from a sample frame developed from the village list, which contains only registered households with permanent status. Recent migrant households have not been registered, therefore were not included in the sample frame.

**Table 5: Time living in Phnom Penh and in community (year)**

| | Living in Phnom Penh (%) | Living in the community (%) |
|---|---|---|
| Less than 2 years | .3 | 1.5 |
| 3-6 years | 3.9 | 9.5 |
| 7-15 years | 14.1 | 32.1 |
| 16-28 years | 81.7 | 56.8 |
| **Total** | **100.0** | **100.0** |

From qualitative interviews with 10 households that had recently migrated from rural areas, we found that registration had not occurred because the migrant households were renting rooms or houses temporarily in the community. A few informants mentioned that they had moved several times in recent years in Phnom Penh. We also found some recent migrant families living together in one house. In this sense, it was very difficult to find migrant families and also to consider such families as a household unit.

We also examined whether there was any movement within households. We found that almost all (97%) family members were living permanently in the households, although 47 (2.1%) reported having family members working in other provinces in rural areas, 13 (0.6%) had members working abroad, and six (0.3%) had members living with relatives elsewhere.

**Table 6: Family members living in the household**

| | Number | % |
|---|---|---|
| Permanent | 2,146 | 97.0 |
| Working in province | 47 | 2.1 |
| Working in other country | 13 | .6 |
| Living with relatives elsewhere | 6 | .3 |
| **Total** | **2,212** | **100.0** |

From the qualitative data, we found that some families that had moved to Phnom Penh still had family members living in their home village, especially elderly parents or young children still in school. Three families had sent their children back to the village to be cared for by the parents, also sending back remittances on a regular basis. One informant sent US$25 to his daughter and elderly parents in Battambang three times a year; another sent about US$10 eight times a year to his parents in Takeo province. The informants indicated that the money was to support their parents for basic living costs, including health care.

Households with family members working in other countries were not selected for in-depth study, so information on remittances was not available. Information obtained from the community feedback meeting suggested that people who went to work abroad usually went to countries such as Thailand, Malaysia and South Korea.

## 3.3 Economic situation of households: poverty assessment

Assessing the poverty status of the population is difficult, in that there is no golden standard measurement. Poverty itself is multidimensional and in a state of flux; poverty status can change owing to various circumstances and conditions, particularly for those living in environments that are more conducive to change, e.g. urban or semi-urban areas. Poverty is relative. Assessing household poverty status is common practice for social protection schemes. However, up to now, there has been no agreement among stakeholders on common criteria and methods for doing so in Cambodia. There is no doubt that poverty varies between rural and urban areas; therefore, method of measurement also varies. In this study, the population resides in a semi-urban/rural area. We applied the tool used by the Urban Sector Group (USG) to assess urban poor populations in slum areas of Phnom Penh. This tool measures poverty status according to five conditions: i) household status; ii) hunger within the past three months; iii) housing condition; iv) last month's expenditure (estimate); and v) household assets and debts. For each condition, there are different categories.

### *3.3.1 Household status*

For Condition 1, we looked at elements such as: households with no income; respondents living alone and ill; nobody in household able to read and write; number of ill persons in household; number of disabled persons in household; and households with single mother with child under 16. We found that 1.5% of households had no income, 3.1% had no member who could read and write, 3.9% had a family member who was ill or disabled, and 1.8% had a single mother. A score was given for each, and the total was added up. To determine the poverty level, we took the total score given to each category and then calculated it to obtain a 'yes' or 'no' for each condition: if the household had two or more categories, then it received a 'yes' for Condition 1.

### *3.3.2 Hunger in household*

For Condition 2, hunger in the past three months meant that households had not had food to eat or had borrowed rice and goods from other households. We found that 83.3% of households had not experienced this, 11.3% said sometimes and 5.4% said often. A score was then given: 0 for never, 1 for sometimes, 4 for often and 5 for all the time. No households mentioned hunger all the time.

### *3.3.3 Housing condition*

Condition 3 related to housing conditions: no home or renting; roof of rusty corrugated iron or plastic bags; earth or broken wood floors; walls made of leaves or poor condition wood; and frequent flooding. We found 20.1% had one or more; 15.7% no home or renting; 2.8% with rusty roof and earth floor; 1% with leaf walls; and 0.5% often experiencing floods.

### *3.3.4 Last month's expenditure*

For Condition 4, we examined the previous month's expenditure, looking at estimated expenditure for a variety of items per month, including water, food, cooking fuel, rent of house/land, gasoline, telephone, school, clothes, transport, electricity, ceremonies, etc. It was found that the estimated previous month's expenditure for all household items was 345,000 Riel (US$86.25).

### *3.3.5 Household assets*

For Condition 5, we looked at the estimated value of household assets. In these communities we found 50.1% of households had one or more water jars, 11.6% had chickens, 2.3% had pigs, 1% had cows, 1.8% had other livestock such as fish, 47.6% had bicycles, 72.8% had motorbikes, 53.5% had radios, 89.7% had TVs, 1.3% had large batteries and 16.5% had computers. In terms of the value of assets (based on the real value given by respondents themselves), we found that 50.1% of households had total assets with a value of more than 2,000,000 Riel (US$500), 14.9% between 1,000,100 and 2,000,000 Riel (US$250-500), 9.3% between 500,100 and 1,000,000 Riel (US$125-250) and 25.7% less than 500,100 Riel (US$125). 2.1% of households had no value from their assets, meaning either they had no assets at all or the assets they had did not have any value.

**Table 7: Total household assets (value estimate)**

| | Number | % |
|---|---|---|
| 0 | 8 | 2.1 |
| 100-5,000 Riel | 5 | 1.3 |
| 5,100-20,000 Riel | 4 | 1.0 |
| 20,100-50,000 Riel | 13 | 3.3 |
| 50,100-100,000 Riel | 6 | 1.5 |
| 100,100-150,000 Riel | 10 | 2.6 |
| 150,100-300,000 Riel | 30 | 7.7 |
| 300,100-500,000 Riel | 24 | 6.2 |
| 500,100-1,000,000 Riel | 36 | 9.3 |
| 1,000,100-2,000,000 Riel | 58 | 14.9 |
| More than 2,000,000 Riel | 195 | 50.1 |
| **Total** | **389** | **100.0** |

### *3.3.6 Household debt*

For Condition 5, we also examined the amount of debt households had had since before the previous month (old debt) and that which they had incurred during the time of the study (new debt). We found 146 (37.5%) of all households had new debt and 243 (40.9%) had old debt. Combining both, 73 (18.8%) households had debt at more than 2,000,000 Riel (US$500) and 37 (9.5%) had debt between US$250 and US$500. About 14% of all households had debt below US$75.

**Table 8: Total household debt (new loan + old loan)**

| | Number | % |
|---|---|---|
| 0 | 169 | 43.4 |
| 5,100-20,000 Riel | 1 | .3 |
| 20,100-50,000 Riel | 6 | 1.5 |
| 50,100-100,000 Riel | 13 | 3.3 |
| 100,100-150,000 Riel | 15 | 3.9 |
| 150,100-300,000 Riel | 22 | 5.7 |
| 300,100-500,000 Riel | 22 | 5.7 |
| 500,100-1,000,000 Riel | 31 | 8.0 |
| 1,000,100-2,000,000 Riel | 37 | 9.5 |
| More than 2,000,000 Riel | 73 | 18.8 |
| **Total** | **389** | **100.0** |

### *3.3.7 Poverty ranking: relative poverty (score for all conditions)*

To assess household poverty status, we took the total score for each condition and calculated it as a score that set a possible indicator of poverty, as a 'yes' or 'no' answer for each condition. The poverty status was then determined based on the total number of 'yes' answers.

| | | |
|---|---|---|
| Condition 1 | Is household status ≥ 2? | Yes/no |
| Condition 2 | Is hunger in household > 3? | Yes/no |
| Condition 3 | Is housing condition ≥ 2? | Yes/no |
| Condition 4 | Is last month's expenditure divided by daily income ≤ 80,000 Riel? | Yes/no |
| Condition 5 | Is household assets – household debt < 500,000 Riel? | Yes/no |
| **Total # of 'yes' answers** | | |

Based on this calculation, we found that 1.8%, 5.4%, 4.4%, 11.3% and 41.4% of all households had a 'yes' answer to Condition 1, Condition 2, Condition 3, Condition 4 and Condition 5, respectively.

We then categorized households as non-poor and poor, based on the total number of 'yes' answers: if a household had none to two 'yes' answers, it was considered non-poor; if it had three to five 'yes' answers, it was considered poor. We found 335 (86.1%) non-poor households and 54 (13.9%) poor households. When these data were presented in the community feedback meetings, participants did not agree, protesting that there were more poor households in the community, as high as 20%. This reflects the fact that we measured poverty in absolute terms, whereas the community sees poverty in more relative terms. This means that they tend to classify those worse off than themselves as poor (even though they may not be poor in an absolute sense). Also, community members tend to see clusters of the poor, which gives them the impression that there are more of them.

**Table 9: Poverty ranking (relative poverty)**

| Poverty status | Number | % |
|---|---|---|
| Non-poor | 335 | 86.1 |
| Poor | 54 | 13.9 |
| **Total** | **389** | **100.0** |

Table 9 indicates that, out of all households interviewed, the majority were non-poor households (86.1%). The proportion of poor households identified (13.9%), in this semi-urban area, is higher than the poverty rate in Phnom Penh (5%), but lower than in rural areas (34%) (World Bank 2006). We can argue that the proportion of poor households identified in this study is consistent with other sources and methods of measurement.

As mentioned above, assessing poverty is a very difficult exercise; it is always hard to set categories and poverty lines, as these are not fixed and often not appropriate to place and time. We recognize that poverty can be assessed in a variety of ways.

## 3.4 Daily income in households

Respondents were asked to estimate their daily income (only members currently living in the house). This varied considerably: 12.6% earned below 10,000 riel (US$2.50); 32.4% between 10,100 and 30,000 Riel (US$2.50-7.50); 32.1% between 30,100 and 70,000 Riel (US$7.50-17.50); 15.9% between 70,100 and 150,000 Riel (US$17.50-35.50); and 4.6% between 150,100 and 300,000 Riel (US$35.50-75). A small proportion of households (2.3%) earned more than US$75 a day. The mean daily income for all households was found to be about 12,800 Riel (US$3.20). The per capita income was found to be about 152,100 Riel (US$38) per month.

**Table 10: Household daily income**

| | Number | % |
|---|---|---|
| 0-10,000 Riel | 49 | 12.6 |
| 10,100-30,000 Riel | 126 | 32.4 |
| 30,100-70,000 Riel | 125 | 32.1 |
| 70,100-150,000 Riel | 62 | 15.9 |
| 150,100-300,000 Riel | 18 | 4.6 |
| More than 300,000 Riel | 9 | 2.3 |
| **Total** | **389** | **100.0** |

The main jobs people do to earn an income included: unskilled work (12.2%); selling goods at home (6.1%); civil servant (6%); employed in private company (5.3%); skilled work (3.95%); motor taxi driver (2.4%); street vender (2.4%); market seller (2.0%); construction work (2.1%); and working in NGO (0.9%).

## 3.5 Health situation

### *3.5.1 Illness over past month*

We found that 34.8% of the total population had experienced illness in the last month. Illness in this context was defined as a health condition that disturbs an individual's physical and emotional wellbeing, leading to the need for medical treatment or inability to perform a normal function. It was found that there was a significant difference between males and females, with males at 30.2% and females at 38.7% (at P-value .000).

**Table 11: Household members sick last month, by sex**

| | Total (N=2276) | | Male (N= 1059) | | Female (N=1217) | | P-value* Chi-square |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| Yes | 791 | 34.8 | 320 | 30.2 | 471 | 38.7 | .000 |
| No | 1485 | 65.2 | 739 | 69.8 | 746 | 61.3 | |
| **Total** | **2,276** | **100.0** | **1,059** | **100.0** | **1,217** | **100.0** | |

We found no significant difference between the non-poor and the poor (P-value 0.557).

Out of the 34.8% individuals who had experienced illness, 75.5% had had acute illness and 24.5% had suffered chronic diseases. There was a difference between non-poor and poor households here. Poor households had suffered more acute illness than non-poor households, 78.8% and 73.3%, respectively (P-value <.007). However, for chronic diseases, the situation reversed: the non-poor had a higher amount (26.6%) of chronic disease than

the poor (21.1%). Table 12 below presents some of the most commonly reported illnesses (see Annex 1 for list of all illnesses reported).

**Table 12: Types of illness reported (acute and chronic)**

| | Total | | Male | | Female | | P-value* |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | Chi-square |
| TB | 6 | .8 | 5 | 1.6 | 1 | .2 | .001 |
| Diarrhea | 18 | 2.3 | 13 | 4.1 | 5 | 1.1 | |
| Hypertension | 59 | 7.5 | 16 | 5.0 | 43 | 9.1 | |
| Diabetes | 24 | 3.0 | 13 | 4.1 | 11 | 2.3 | |
| Heart disease | 17 | 2.1 | 2 | .6 | 15 | 3.2 | |
| Cough/respiratory | 336 | 42.5 | 144 | 45.0 | 192 | 40.8 | |
| Stomach pain | 35 | 4.4 | 15 | 4.7 | 20 | 4.2 | |
| Fever | 49 | 6.2 | 24 | 7.5 | 25 | 5.3 | |
| Typhoid | 11 | 1.4 | 3 | .9 | 8 | 1.7 | |
| Arthritis | 40 | 5.1 | 16 | 5.0 | 24 | 5.1 | |
| Weakness and tiredness | 59 | 7.5 | 14 | 4.4 | 45 | 9.6 | |
| Hepatitis/liver inflammation | 11 | 1.4 | 6 | 1.9 | 5 | 1.1 | |
| Bronchitis/lung pain/asthma | 7 | .9 | 3 | .9 | 4 | .8 | |
| Mental health | 8 | 1.0 | 3 | .9 | 5 | 1.1 | |
| Hemorrhoid | 7 | .9 | 5 | 1.6 | 2 | .4 | |
| Dermatitis | 17 | 2.1 | 6 | 1.9 | 11 | 2.3 | |
| Other | 87 | 11.0 | 32 | 10.0 | 55 | 11.7 | |
| **Total** | **791** | **100.0** | **320** | **100.0** | **471** | **100.0** | |

The most-reported acute illness was respiratory infection (42.5%), more common in males than females (which may owe to smoking or going to bars where there is smoke). This was found among all age groups, but less among those above 60 years old. A study (POVILL)[5] conducted in rural Takeo province reported a similar pattern of diseases: among all the diseases mentioned, acute respiratory tract infection was found to be the most common.

Hypertension was found to be the most commonly reported chronic disease (7.8%), and it occurred more among the female population. In terms of age, 2% came from the age group between 26 and 40 years old, 13.6% from the 41 to 60 age group, and 26.4% from the above 60 age group. This high proportion of people was confirmed by participants in the community feedback meeting.

It was also interesting that about 7.5% of people complained of weakness and tiredness, without a clear diagnosis. It is not clear if this is a symptom of acute or chronic disease, but it was reported as a chronic condition more among females (9.6%) than males (4.4%). The difference was statistically significant, at P<.001. It was found most among people aged between 26 and 40 (at 12.9%) and between 41 and 60 (at 10.2%). As explained by participants in the community feedback meeting, one of the causes of weakness and tiredness is lack of food. For heart disease, the proportion was higher among females; participants in the feedback meeting explained that females were more stressed and thought about family problems much more than males.

Stomach pain was not very clear here, but people frequently reported it as one of the main causes of their ill health, often reporting it as a chronic condition. Data from one NGO, MoPoStyo (Patient Information Center), gathered during prescreening of diabetes in poor urban slum communities in Phnom Penh, show that a high proportion of people report

[5] Funded by the EU involving multiple countries conducting research entitled “Protecting the Rural Poor against the Economic Consequences of Major Illness: a Challenge for Asian Transitional Economies’.

abdominal pain as a chronic condition and that people spend the most money on treatment of this (personal communication). Such a finding would benefit from further research.

### *3.5.2 Serious illness over the past year*

Households were asked if any family member had suffered from a serious illness or disability over the past year. A serious illness was defined in terms of: major health problems leading to hospitalization; chronic health problems requiring substantial care and treatment; or illnesses that had a major impact on the household economic burden owing to high health care costs. It was found that 11.2% had seen this occur. There was a slight difference between males and females suffering from major illness: 9.6% occurred among males and 12.7% occurred among females (P<.023). There was no significant difference between the non-poor and the poor in terms of suffering from serious illness (P<.831).

**Table 13: Serious illness by poverty status**

| | Total | | Non-poor | | Poor | | P-value |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| Yes | 256 | 11.2 | 219 | 11.2 | 37 | 11.6 | .831 |
| No | 2020 | 88.8 | 1738 | 88.8 | 282 | 88.4 | |
| **Total** | **2,276** | **100.0** | **1,957** | **100.0** | **319** | **100.0** | |

We asked whether the serious illness was diagnosed by a qualified provider. Table 14 below presents the types of illness on which respondents had received a clear diagnosis. Some of these cases may include illness reported in the past month period.

**Table 14: Serious illness over the past 12 months (qualified diagnosis)**

| | Total | | Male | | Female | | P-value* Chi-square |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| HIV/AIDS | 4 | 1.6 | 1 | 1.0 | 3 | 1.9 | .024 |
| TB | 7 | 2.7 | 5 | 4.9 | 2 | 1.3 | |
| Diabetes | 22 | 8.6 | 11 | 10.8 | 11 | 7.1 | |
| Hypertension | 61 | 23.8 | 18 | 17.6 | 43 | 27.9 | |
| Kidney disease | 4 | 1.6 | 3 | 2.9 | 1 | .6 | |
| Heart disease | 20 | 7.8 | 3 | 2.9 | 17 | 11.0 | |
| Mental disease | 9 | 3.5 | 4 | 3.9 | 5 | 3.2 | |
| Surgery | 5 | 2.0 | 4 | 3.9 | 1 | .6 | |
| Asthma/bronchitis | 11 | 4.3 | 4 | 3.9 | 7 | 4.5 | |
| Gastric ulcer | 22 | 8.6 | 9 | 8.8 | 13 | 8.4 | |
| Hepatitis | 10 | 3.9 | 5 | 4.9 | 5 | 3.2 | |
| Joint pain | 9 | 3.5 | 5 | 4.9 | 4 | 2.6 | |
| Hemorrhoid | 6 | 2.3 | 4 | 3.9 | 2 | 1.3 | |
| Typhoid | 7 | 2.7 | 2 | 2.0 | 5 | 3.2 | |
| Physical injury | 7 | 2.7 | 4 | 3.9 | 3 | 1.9 | |
| No diagnosis | 11 | 4.3 | 8 | 7.8 | 3 | 1.9 | |
| Others | 41 | 16.0 | 12 | 11.8 | 29 | 18.8 | |
| **Total** | **256** | **100.0** | **102** | **100.0** | **154** | **100.0** | |

It is important to note that serious illness reported over the past year can overlap with illness reported for the past month, especially for chronic illness. The difference between the two was that illness reported for the past year was considered by respondents to be serious.

Hypertension was most mentioned (23.8%), followed by diabetes (8.6%) and gastric ulcers (8.6). Heart disease also found to be quite high (7.8%). Physical injury was reported in seven (2.7%) cases. Only four cases of HIV/AIDS were found in the household survey.

Interestingly, cough/respiratory infection, the most frequently mentioned illness over the past month, was not considered a serious illness, thus it was not mentioned.

When examining serious illness reported over the past year, the difference between males and females is consistent with illness reported for the past month. Hypertension and heart disease occurred more among females than males, but diabetes was present more among males (10.8%) than females (7.1%). Physical injury was also found more among males (3.9%) than females (1.9%).

## 3.6 Health-seeking behavior

### *3.6.1 Illness over past month*

For those who had experienced illness in the past month, 615 (77.7%) had sought out a first treatment for their illness. Of these, 91.2% and 99.5% did not seek a second and third treatment, respectively. A very small proportion of people sought out treatment beyond the first treatment.

**Table 15: Treatment sought for last month illness**

| | First treatment (%) | Second treatment (%) | Third treatment (%) |
|---|---|---|---|
| Yes | 77.7 | 8.9 | .5 |
| No | 22.3 | 91.1 | 99.5 |
| **Total** | **100.0** | **100.0** | **100.0** |

Regarding delay in seeking out treatment at the onset of the illness, out of those who sought out treatment, 94 (15.3%) reported that they waited for some period of time first. Reasons for this included the feeling that the illness was not serious (57.8%), no money (35.9%), don't know where to go (1.6%), opportunity cost (3.2%) and long distance (1.6%). There was a significant difference (P<.001) between non-poor and poor households regarding reasons for delaying treatment. The majority of households (73.7%) who did not seek out treatment right away because they perceived the illness was not serious were non-poor, compared with the poor at only 21.1%. However, it was more the poor (73.3%) who reported that they waited because they did not have money. Financial constraints are an important factor influencing the decision of poor households in seeking out treatment. This finding confirms many other previous studies, e.g. a recent study on access to health care in urban and rural areas conducted by Annair et al. (2006).

**Table 16: Reason for waiting, by poverty status**

| | Total | | Non-poor | | Poor | | P-value |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| No money | 23 | 35.9 | 9 | 20.0 | 14 | 73.7 | .001 |
| Don't know where to go | 1 | 1.6 | 0 | .0 | 1 | 5.3 | |
| Illness not serious | 37 | 57.8 | 33 | 73.3 | 4 | 21.1 | |
| Opportunity cost | 1 | 1.6 | 1 | 2.2 | 0 | .0 | |
| Distance | 1 | 1.6 | 1 | 2.2 | 0 | .0 | |
| No free time | 1 | 1.6 | 1 | 2.2 | 0 | .0 | |
| **Total** | **64** | **100.0** | **45** | **100.0** | **19** | **100.0** | |

People mostly purchased drugs at private pharmacies for self-treatment (65.8%). This is also reported in the CDHS 2005, which indicates that the private pharmacy is most frequently used as a first treatment option. The second most-reported treatment option was the private clinic (8.5%) followed by treatment at a health center (7.0%) and treatment at a national hospital in Phnom Penh (3.6%). About 3.2% reported receiving treatment from trained health workers at home, mostly through injection.

### *3.6.2 Serious illness over past year*

To understand health-seeking behavior for serious illnesses over the past 12 months, we asked respondents about the duration and place of inpatient treatment. It was found that 199 (51.2%) households reported receiving inpatient treatment over the past year for serious illness; among these, 30.2% were non-poor and 40.7% were poor. This result indicates a small difference between the non-poor and poor in accessing inpatient treatment for serious illness (P<.275).

**Table 17: Households receiving inpatient treatment over the past year**

| | Total | | Non-poor | | Poor | | P-value |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| Yes | 63 | 31.7 | 52 | 30.2 | 11 | 40.7 | .275 |
| No | 136 | 68.3 | 120 | 69.8 | 16 | 59.3 | |
| **Total** | **199** | **100.0** | **172** | **100.0** | **27** | **100.0** | |

We also asked how many days they spent undergoing inpatient treatment. The majority of households (46%) reported spending between one and five days; 28.6% spent between six and 10 days. Four households reported more than 60 days. There was no difference between the non-poor and poor in terms of amount of days of inpatient treatment (P<.302).

**Table 18: Number of days spent as inpatient (total over year): individuals**

| | Total | | Non-poor | | Poor | | P-value |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| 1-5 days | 32 | 48.5 | 25 | 46.3 | 7 | 58.3 | .335 |
| 6-10 days | 18 | 27.3 | 15 | 27.8 | 3 | 25.0 | |
| 11-20 days | 9 | 13.6 | 9 | 16.7 | 0 | .0 | |
| 21-30 days | 2 | 3.0 | 2 | 3.7 | 0 | .0 | |
| 31-60 days | 1 | 1.5 | 1 | 1.9 | 0 | .0 | |
| More than 60 days | 4 | 6.1 | 2 | 3.7 | 2 | 16.7 | |
| **Total** | **66** | **100.0** | **54** | **100.0** | **2** | **16.7** | |

When asked in the community feedback meeting why more poor people seemed to receive longer inpatient treatment, participants said that the poor did not have enough money to pay for good treatment and to get enough care from health care providers. As one participant stated, 'the poor don't have money to give the doctor, so they just leave us without giving treatment, or give ineffective medicine … that is why the poor stay in the hospital longer than those who have money' (participant in Russei Keo village). One participant even mentioned of *jinch jem jumger* or 'patient breeding': this concept refers to health care providers purposefully keeping patients for a longer period of time in order to make money (e.g. giving injections or IV fluids to get more money from the patient without diagnosis). Such a statement needs further study.

In terms of inpatient facilities, respondents mentioned private clinics or polyclinics, national hospitals, NGO clinics, municipal hospitals and health centers. The most commonly mentioned for inpatient care were private clinics or polyclinics (42.4%), followed by national hospitals (33.3%). NGO clinics were also found (19.7%).

**Table 19: Places where patients received inpatient treatment**

| | Total | | Non-poor | | Poor | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| National hospital | 22 | 42.4 | 18 | 32.1 | 4 | 33.3 |
| Municipal hospital | 3 | 33.3 | 2 | 3.6 | 1 | 8.3 |
| Health center | 2 | 19.7 | 2 | 3.6 | 0 | .0 |
| Private clinic | 28 | 4.5 | 24 | 42.9 | 4 | 33.3 |
| NGO facility | 13 | 3.0 | 10 | 17.9 | 3 | 25.0 |
| **Total** | **68** | | **56** | | **12** | |

Of those who suffered serious illness and went to a health care facility and were told by a qualified provider that they needed inpatient care urgently, 20 did not follow this advice. The main reason for this was the high cost of treatment (65%).

**Table 20: Reason for not obtaining inpatient care**

| | Number | % |
|---|---|---|
| Treatment expensive | 13 | 65.0 |
| Don't have time | 6 | 30.0 |
| Don't like to sleep at hospital | 1 | 5.0 |
| **Total** | **20** | **100.0** |

From the in-depth study of households experiencing serious illness in the past year, we found households spent a great deal of time and money shopping around, going from one private clinic to another, sometimes ending up with different diagnoses. However, of the 10 households with serious illness, nine did not seek inpatient care, but spent more resources treating their illness at private clinics and purchasing medicine at pharmacies.

**Box 1: Shopping around for treatment and different diagnoses**

One female patient who had uterus cancer first went to a private clinic in Phnom Penh. She was diagnosed as having Hepatitis B and was treated for a month. She was told by other people that this could be cured with traditional medicine, so went to Takeo for treatment. She believed that her disease was cured. Later on, her condition got worse, with bleeding inside the uterus, so she decided to go to a private clinic in Takeo for diagnosis and was found to have vaginal discharge. She came back to Phnom Penh to be treated at another private clinic, while also being treated at home by different providers who came regularly to provide injections. When her condition did not improve she decided to go an NGO clinic (Reproductive Health Association of Cambodia – RHAC). They found she had a serious problem with her uterus and referred her to the Russian Friendship Hospital. It was there that she was diagnosed with uterus cancer and received inpatient treatment for two months, which cost up to US$8,000. She ended up borrowing money and selling her assets to pay for treatment.

## 3.7 Health care expenditure: economic impact of illness

### *3.7.1 Cost of treatment for illness of past month*

For an illness in the past month, respondents were asked to estimate the amount they spent on health care costs for a first treatment. Since only a few households sought second and third treatments, we only present here the total cost for the first treatment. This is a combination of transportation and drug costs. Costs varied considerably: 17.7% of households spent less than US$1 and 26.6% spent between US$1 and US$5. More than 18% spent between US$2 and US$12.50 and about 5% spent between US$25 and US$50. Four cases (1.1%) spent more than US$250. Interestingly, 14.2% reported that they had received free medical treatment.

Comparing non-poor and poor households, we found not much difference ($p < .913$) in terms of the amount spent on health care. In fact, quite a large number of non-poor households

(46) mentioned receiving free medical treatment. Unfortunately, we could not determine the source of the free medical treatment.

**Table 21: Total spent on treatment for past month illness (transport or drugs)**

| | Total | | Non-poor | | Poor | | P-value* Chi-square |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| Free | 53 | 14.3 | 46 | 14.5 | 7 | 13.2 | |
| 100-5,000 Riel | 66 | 17.8 | 58 | 18.2 | 8 | 15.1 | |
| 5,100-20,000 Riel | 98 | 26.4 | 82 | 25.8 | 16 | 30.2 | |
| 20,100-50,000 Riel | 70 | 18.9 | 58 | 18.2 | 12 | 22.6 | |
| 50,100-100,000 Riel | 52 | 14.0 | 45 | 14.2 | 7 | 13.2 | .913 |
| 100,100-200,000 Riel | 18 | 4.9 | 16 | 5.0 | 2 | 3.8 | |
| 200,100-500,000 Riel | 5 | 1.3 | 5 | 1.6 | 0 | .0 | |
| 500,100-1,000,000 Riel | 5 | 1.3 | 5 | 1.6 | 0 | .0 | |
| More than 1,000,000 Riel | 4 | 1.1 | 3 | .9 | 1 | 1.9 | |
| **Total** | **371** | **100.0** | **318** | **100.0** | **53** | **100.0** | |

### *3.7.2 Costs of treatment for serious illness*

As shown in Table 22 below, for serious illness we found the majority had spent more than US$50 on medical treatment over the past year: 21.5% had spent between US$50 and US$125 and about 19% between US$125 and US$250. We found that quite a large number of households (21%) had spent more than US$250. Among all of these, 18 households (7%) received free treatment. Again, there is no difference between the non-poor and the poor in the total amount of money spent. Interestingly, we found eight cases of poor households spending more than 1,000,000 Riel (US$250).

**Table 22: Total spent on treatment of serious illness over past year: individuals**

| | Number | % |
|---|---|---|
| Free | 18 | 7.0 |
| 100-5,000 Riel | 2 | .8 |
| 5,100-20,000 Riel | 6 | 2.3 |
| 20,100-50,000 Riel | 9 | 3.5 |
| 50,100-100,000 Riel | 22 | 8.6 |
| 100,100-200,000 Riel | 36 | 14.1 |
| 200,100-500,000 Riel | 55 | 21.5 |
| 500,100-1,000,000 Riel | 49 | 19.1 |
| More than 1,000,000 Riel | 56 | 21.9 |
| Don't know | 3 | 1.2 |
| **Total** | **256** | **100.0** |

To determine the economic impact of illness on households, we also asked respondents to give an estimate of the total amount of money spent over the past year on direct costs for all illnesses. Surprisingly, we found that about 65% of households had spent over US$75, out of which 17.3% spent between US$75 and US$125; 15.5% between US$125 and US$250; 11.3% between US$250 and US$500; and 8.5% between US$500 and US$1,250. It was found that 10 households (2.6%) stated that they had spent more than US$1,250 on direct costs for health care; among these, two were from poor households.

**Table 23: Household spending on direct health care costs: by poverty status**

| | Total | | Non-poor | | Poor | | P-value* Chi-square |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| 10,000-100,000 Riel | 78 | 20.1 | 61 | 18.3 | 17 | 31.5 | |
| 100,100-300,000 Riel | 96 | 24.7 | 84 | 25.1 | 12 | 22.2 | |
| 300,100-500,000 Riel | 67 | 17.3 | 59 | 17.7 | 8 | 14.8 | |
| 500,100-1,000,000 Riel | 60 | 15.5 | 52 | 15.6 | 8 | 14.8 | .351 |
| 1,000,100-2,000,000 Riel | 44 | 11.3 | 41 | 12.3 | 3 | 5.6 | |
| 2,000,100-5,000,000 Riel | 33 | 8.5 | 29 | 8.7 | 4 | 7.4 | |
| More than 5,000,000 Riel | 10 | 2.6 | 8 | 2.4 | 2 | 3.7 | |
| **Total** | **388** | **100.0** | **334** | **100.0** | **54** | **100.0** | |

### *3.7.3 Source of money*

Respondents mentioned multiple sources of financing. The table below presents some of these, but respondents usually obtained money from more than one source. The majority of respondents, or 336 (86.3%), stated that they paid for their health care costs from their savings, both for non-poor and poor households. Paying for health care costs from wages was mentioned by more than half of the respondents – 216 (55.5%); again, this pattern is similar for the non-poor and the poor households. However, it was found that six non-poor households had sold land/house to pay health care costs; no poor households had done so. This could either be because the poor did not seek as much care as they should have or because they lacked assets to dispose of, or both. Borrowing money from someone was mentioned by 76 respondents (19.5%), out of whom 53 (13.6%) were the non-poor and 23 (5.9%) were poor. Interestingly, only 15 respondents stated that they had received financial assistance from an official source to pay for their health care costs; among these, 11 were non-poor and only four were poor households.

**Table 24: Money sources for health care over the year (multiple answers)**

| | Total | | Non-poor | | Poor | |
|---|---|---|---|---|---|---|
| | | % | | % | | % |
| From savings | 336 | 86.3 | 291 | 74.8 | 45 | 11.5 |
| From wages | 216 | 55.5 | 196 | 50.4 | 20 | 5.1 |
| Reduce expenditure on food | 2 | .5 | 2 | .5 | 0 | 0 |
| Sold household goods | 11 | 2.8 | 9 | 2.3 | 2 | .5 |
| Sold land/house | 6 | 1.5 | 6 | 1.5 | 0 | 0 |
| Sold livestock | 6 | 1.5 | 6 | 1.5 | 0 | 0 |
| Sought additional paid work | 102 | 26.2 | 91 | 23.3 | 11 | 2.9 |
| Help from relatives | 69 | 17.7 | 58 | 14.9 | 11 | 2.9 |
| Help from official source | 15 | 3.9 | 11 | 2.9 | 4 | 1 |
| Borrow from someone | 76 | 19.5 | 53 | 13.6 | 23 | 5.9 |
| Neighbor | 1 | .3 | 0 | 0 | 1 | .3 |
| Friends | 2 | .5 | 0 | 0 | 2 | .5 |

The qualitative data show that the main source of money took the form of out-of-pocket payments, help from relatives, and sometimes borrowing from others. Out of the 10 households suffering from serious illness, all received assistance from family and relatives and three households had borrowed and sold assets to pay for health care costs.

### Box 2: Sources of money and debts incurred for health care costs

One household spent in total 1,890,000 Riel (US$420) on medical treatment when a family member suffered from a stroke related to hypertension. In the first treatment stage, the patient was self-treated at home with injections provided by an injection practitioner in the village for two months, which cost about US$392 in total. The money to pay for the treatment came from personal savings, from family

and from a moneylender. The amount of money borrowed was US$400. In the second stage, the patient received treatment with acupuncture for two days, which cost about US$25. The source of money for this came out of pocket. At this stage, the patient went to the Center of Hope for a consultation free of charge. In the next stage, the patient purchased medicine at a private pharmacy, which cost about US$2 per prescription. Currently, the patient still has about US$150 of debt, even after the household has sold a motorcycle. Another household with a family member with uterus cancer ended up with a larger debt (US$2,000) for medical treatment, which has not yet been paid off.

### *3.7.4 Debt from health care*

In the household survey, we found 77 (19.8%) of all households reported having borrowed money from others to pay for health care. Poor households are more indebted than non-poor for health care (P<.000).

**Table 25: Borrowing money from others over the year, by poverty status**

| | Number | | Non-poor | | Poor | | P-value* |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | Chi-square |
| Yes | 77 | 19.8 | 53 | 15.8 | 24 | 44.4 | .000 |
| No | 312 | 80.2 | 282 | 84.2 | 30 | 55.6 | |
| **Total** | **389** | **100.0** | **335** | **100.0** | **54** | **100.0** | |

The source of borrowing was mostly moneylenders in the community (57.1%). Moneylenders here are defined as those who provide loans to an individual by taking interest on the amount lent; this can be anybody (neighbor, friend, relatives, etc.) However, most moneylenders are neighbors. The second source of borrowing was from relatives (23.4%). A very small proportion of households have access to formal loans (2.6%).

**Table 26: Source of loan**

| | Number | % |
|---|---|---|
| Relative | 18 | 23.4 |
| Friend | 4 | 5.2 |
| Neighbor | 10 | 13.0 |
| Moneylender | 44 | 57.1 |
| Bank | 2 | 2.6 |

Loan amounts taken by households to pay for health care costs vary between households. Table 27 below shows the different amounts of money households borrowed.

**Table 27: Amounts borrowed for health care costs**

| | Number | % |
|---|---|---|
| 10,000-100,000 Riel | 19 | 24.7 |
| 100,100-300,000 Riel | 22 | 28.6 |
| 300,100-500,000 Riel | 13 | 16.9 |
| 500,100-1,000,000 Riel | 13 | 16.9 |
| 1,000,100-2,000,000 Riel | 7 | 9.1 |
| 2,000,100-5,000,000 Riel | 3 | 3.9 |
| **Total** | **77** | **100.0** |

Out of the 77 households that borrowed money, 52 (67.5%) reported paying interest on the loan. Since different types of loan (daily, weekly, monthly) are taken by different households, it is difficult to calculate the rate of interest of these loans. Qualitative information indicates that the interest rate ranges from 10% to 20%.

About 87% of all loans reported did not have collateral. Only six households mentioned using house and/or land as collateral for a loan; among these, four were poor households.

**Table 28: Collateral used for loan**

| | Total | | Non-poor | | Poor | | P-value* Chi-square |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| House | 5 | 6.5 | 2 | 3.8 | 3 | 12.5 | .250 |
| Land | 1 | 1.3 | 0 | .0 | 1 | 4.2 | |
| Jewelry | 2 | 2.6 | 1 | 1.9 | 1 | 4.2 | |
| Family book | 2 | 2.6 | 1 | 1.9 | 1 | 4.2 | |
| No collateral used | 67 | 87.0 | 49 | 92.5 | 18 | 75.0 | |
| **Total** | **77** | **100.0** | **53** | **100.0** | **24** | **100.0** | |

The majority of households took a loan for more than three months; 63 households (81.8%) still had not managed to pay off the debt. All these household debts resulted from health care costs.

## 3.8 Social impacts of serious illness

### *3.8.1 Impact on ability to work*

To determine the degree of impact of serious illness on ability to work, respondents were asked to categorize this, from light to moderate to severe disruption to ability to work. Out of the 256 who had experienced serious illness over the past year, 82 (32%) stated that the illness had disturbed their ability to work severely; 78 (30.9%) stated that it had disturbed them moderately; and 60 (23.4%) stated that it had disturbed them slightly.

**Table 29: Degree illness disturbed sick person's ability to work**

| | Number | % |
|---|---|---|
| Lightly | 60 | 23.4 |
| Moderately | 79 | 30.9 |
| Severely | 82 | 32.0 |
| Child not go to school | 8 | 3.1 |
| Not disturbed at all | 27 | 10.5 |
| **Total** | **256** | **100.0** |

This indicates that quite a high number of people found themselves affected by their illness so that, in some way, they were prevented from engaging in normal work. For those at working age, we found that 60 (23.4%) were unable to work for less than one month, 44 (17.2%) for between one and five months, and 24 (9.4%) for between six and 12 months. This indicates that more than 10% of those who suffered from serious illness lost a great deal of working time, which impacts greatly on household income generation.

**Table 30: Period unable to work owing to illness (those of working age)**

| | Number | % |
|---|---|---|
| 0 | 122 | 47.7 |
| Less than 1 month | 60 | 23.4 |
| 1-5 months | 44 | 17.2 |
| 6-12 months | 24 | 9.4 |
| 13-36 months | 4 | 1.6 |
| More 3 years | 2 | .8 |
| **Total** | **256** | **100.0** |

### *3.8.2 Impact on other family members*

The social impact of illness can also be on other family members, who spend time caring for the ill person. In this study, we asked about the amount of time other household members

had spent caring for the ill person so that they had to give up their own productive/revenue-generating activities. We found that more than 20% of household members spent more than one month caring for the person suffering from serious illness. We also asked whether the family member had to spend substantial time doing productive tasks that would normally have been done by the ill person. Only around 5% of other family members did this, but around 30% of other family members did the household tasks of the ill person.

### *3.8.3 Impact on schooling*

We also explored the impact of serious illness on children's schooling, asking whether it was decided to take children out of school to help with care or with the tasks that normally would have been done by the sick person. Of those households that reported a family member suffering from serious illness, 13 (5.1%) had stopped their children going to school in order to help take care of the seriously ill person; of these, 10 were non-poor and three were poor.

**Table 31: Taking children from school to take care of seriously ill person**

| | Total | | Non-poor | | Poor | |
|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** |
| Yes | 13 | 5.1 | 10 | 4.6 | 3 | 8.1 |
| No | 243 | 94.9 | 209 | 95.4 | 34 | 91.9 |
| **Total** | **256** | **100.0** | **219** | **100.0** | **37** | **100.0** |

## 3.9 Support for health-related costs/impacts

Another important objective of this study was to find out whether there was any form of financial assistance available to assist households with meeting health care costs. We asked respondents if they had received financial help from any official source, either government or NGO, over the past year to pay for health care costs. We found that 74 out of 113 (66.7%) reported not having any financial support from any official source; 15 out of 113 (13.5%) received an exemption; and 21 out of 113 (18.8%) were assisted by an NGO.

**Table 32: Financial help from official source, government or NGO**

| | Total | | Non-poor | | Poor | |
|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** |
| No | 74 | 66.7 | 63 | 67.0 | 11 | 57.9 |
| Exemption for user fee | 15 | 13.5 | 13 | 13.8 | 2 | 10.5 |
| Local authorities | 2 | 1.8 | 0 | .0 | 2 | 10.5 |
| NGO | 21 | 18.9 | 17 | 18.1 | 4 | 21.1 |
| **Total** | **113** | | **94** | | **19** | |

When asked about the amount of financial assistance provided by NGOs and government, almost all participants were not able to respond; the majority simply stated that they did not know. Something interesting here is that there is little difference in the pattern of assistance between poor and non-poor households.

Respondents were asked if they received any financial support other than that from government or NGOs. Of 113 respondents, 81 (73%) said that most of the financial support they received to pay for health care costs came from family and relatives.

**Table 33: Support from other sources to meet health care costs**

| | Total | | Non-poor | | Poor | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| No | 23 | 20.7 | 22 | 22.1 | 3 | 11.1 |
| Family | 81 | 73.0 | 70 | 73.7 | 11 | 61.1 |
| Friends | 7 | 6.3 | 3 | 3.2 | 4 | 22.2 |
| **Total** | **113** | | **95** | | **18** | |

When asked about the amount received, respondents were able to answer.

**Table 34: Amount of support received from family and friends**

| | Number | % |
|---|---|---|
| Less than 50,000 Riel | 13 | 14.8 |
| 50,000-200,000 Riel | 35 | 39.8 |
| 200,100-500,000 Riel | 16 | 18.2 |
| 500,100-1,000,000 Riel | 9 | 10.2 |
| More than 1,000,000 Riel | 11 | 12.5 |
| Don't know | 4 | 4.5 |
| **Total** | **88** | **100.0** |

## 3.10 Access to CBHI

From the household survey of 389 households, only six claimed to hold CBHI. Out of these, two paid for this by themselves and four households were paid for by the local authorities, as they were considered poor households. When asked in the community feedback meeting why only a few households held CBHI, most participants simply stated that they did not know about it and that there was no clear information or explanation on membership.

The six households with CBHI stated that they did have a clear explanation on how to use the membership and how to claim when they used the card. When asked whether they had ever used the card, five out of six households said they had. One household had used it only once and four had used it several times.

**Table 35: Since having CBHI membership, have you used the card?**

| | Number | % |
|---|---|---|
| No, never | 1 | 16.7 |
| Yes, but only once | 1 | 16.7 |
| Yes, several times | 4 | 66.7 |
| **Total** | **6** | **100.0** |

When asked when they decided to use the membership card, four households stated that that they used it right away when a family member was sick. Two households mentioned that they used it when the sickness got worse and only for serious illness. Of the six households, only one household used it for HIV/AIDS treatment.

## 3.11 Access to and use of HIV services

### *3.11.1 Knowledge and access to HIV/AIDS testing service*

In this study, we did not attempt to assess respondents' knowledge about HIV/AIDS, but focused more on the knowledge they had about the availability of and access to services for HIV/AIDS. In general, all respondents had heard and knew about AIDS. With regard to their knowledge of a place to get tested for HIV/AIDS, more than half of the respondents cited national hospitals in Phnom Penh. Only 4.4% of respondents mentioned VCCT (voluntary confidential counseling and testing). Private clinics were mentioned by about 14% of

respondents. Out of the 389 respondents, 108 (27.8%) did not know of a place for HIV/AIDS testing.

When the household head was asked if he/she had ever been tested for HIV/AIDS, 115 out of 389 respondents (29.6%) said they had; 42 out of the 115 tested (36.5%) were tested less than 12 months ago and 65 (56.5%) were tested more than two years ago. The respondents were also asked if the test they had taken was on their own initiative. Asking for the test on their own initiative was mentioned by 61 respondents out of the 115, that is 53%. Another 26 out of 115 mentioned that the test was offered by health care providers and they accepted it. However, 28 (24.3%) stated that the test was required by the health care provider.

### *3.11.2 Knowledge and access to HIV treatment services*

Knowledge on medical treatment for HIV/AIDS was also found to be high among all respondents: 73% knew about the availability of treatment. However, only 26% knew where to access treatment. Places respondents knew of for treatment included national hospitals (89.1%); referral hospitals in Phnom Penh (4%); referral hospitals in the province (2%); NGO clinics (1%); and the Center of Hope (12.9%). The three most-mentioned national hospitals included the Russian Friendship Hospital, Calmette Hospital and Preah Kitomalea Hospital. However, in in-depth interview, participants also mentioned other facilities, including the Center of Hope and other NGO clinics.

Based on in-depth interviews with 10 households affected by HIV/AIDS, seven said that they had learned of and accessed HIV/AIDS treatment through Khemara, which had assisted them or referred them to appropriate treatment facilities. All these 10 households had received medical treatment and social assistance from different hospitals and NGOs, including Khemara, the Cambodian Red Cross (CRC), *Khossor* and Pharmaciens sans Frontières (PSF).

### *3.11.3 Access to livelihood resources*

All the 10 households affected by HIV/AIDS were receiving livelihood assistance in one form or another from various sources. Types of social care and assistance received included food (rice, salt, fish, etc.), clothes, monthly allowance, micro-credit for small business, money for transportation (6,000 Riel) for monthly follow-up visits and, most importantly, home-based care. Khemara was mentioned as providing the most assistance on a regular basis. Most participants were satisfied with the assistance they received. A few participants were dissatisfied because assistance was often not delivered on time when they were in need. Several participants mentioned that they would prefer more training on life skills, especially vocational skills to help them earn more income for their household.

When asked to what degree the disease had disturbed their ability to work and earn an income, seven out of 10 participants said that the disease had disturbed them severely, to the point that they could no longer work. Five participants had stopped working owing to their health problems, and three other participants still were able to work moderately.

Out of the 10 participants interviewed, only one said that he was being discriminated against in the community. Two participants said that, because they no longer were able to earn an income in the family, they had lost their family status.

### *3.11.4 Health care expenditure for HIV/AIDS treatment*

In the in-depth interviews among the 10 households affected by HIV/AIDS, data were collected on health care costs. Interviewees were asked to estimate how much they had spent in total for their treatment, including inpatient care and costs for drugs. All 10 patients were under anti-retroviral treatment (ARV) free of charge, but before they received this they

spent a great deal of money on inpatient care or purchasing drugs from private pharmacies in an attempt to treat HIV/AIDS or opportunistic infections. A comparative study on barriers to health care access among HIV/AIDS and diabetic patients in Phnom Penh and Takeo conducted by Chean Men (2007) found that both HIV/AIDS and diabetic patients experienced various types of barriers to care and treatment throughout the different stages of their disease, starting from proper diagnosis, to obtaining treatment and care, to getting the disease under control. It was found that, in the stage before getting a proper diagnosis, HIV/AIDS patients spent a large amount of money treating the symptoms and obtaining multiple diagnoses. It was at this early stage that HIV/AIDS households fell into debt.

This study saw similar findings. Seven out of the 10 HIV/AIDS households had borrowed money from neighbors and relatives to pay for medical treatment, as well as using their savings. The amount of money borrowed ranged from US$50 to US$120, and the interest rate also varied (6% to 25%) depending on whom they borrowed from. One household spent in total US$625 on health care; the money came from savings, loans and selling assets (motorcycle). Another household borrowed US$120 but paid interest to US$30 per month, taking six months to pay off the debt. Such a situation can take a household deeper into poverty, as nine out of the 10 households interviewed did not have any social protection, e.g. HEF or CBHI. Only one household had CBHI membership from SKY to cover health care costs. When asked if they wanted and were willing to pay for CBHI, all households said yes. Respondents said the barrier to this was simply a lack of information.

## Box 3: Scenarios for CBHI

This box attempts to demonstrate how CBHI can help save money for households experiencing illness by looking at the proportion of households that spent more in the past year on health care costs than they would need to pay in subscription costs to a CBHI system.

If we look at the relationship between household size and health care expenditure we find households with one member, seven household spent more than US$25 for health care costs over the past year. There were 123 households with two to four persons: 23 (18.7%) spent between 300,100-500,000 Riel (US$75-125); 13 (10.6%) spent between 500,000-1,000,000 Riel (US$125-250); and 27 (22%) spent more than 1,000,000 Riel (US$250). There were 174 households with five to seven persons: 27 (15.5%) spent between 500,000 -1,000,000 Riel (US$125-250); 25 (14.4%) spent between 1,000,000-2,000,000 Riel (US$250-500) and 12 (6.8%) spent above 2,000,000 Riel (US$500). In the 82 households with more than eight persons, 41 (50%) spent more than US$125. The table below shows the proportion of health care expenditure over the past year by household size.

| Riel | 1 member | | 2 - 4 members | | 5 - 7 members | | More than 7 members | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| 10,000 - 100,000 | 3 | 33.3 | 26 | 21.1 | 39 | 22.4 | 10 | 12.2 | 78 | 20.1 |
| 100,100 - 300,000 | 4 | 44.4 | 34 | 27.6 | 41 | 23.6 | 17 | 20.7 | 96 | 24.7 |
| 300,100 - 500,000 | 0 | .0 | 23 | 18.7 | 30 | 17.2 | 14 | 17.1 | 67 | 17.3 |
| 500,100 - 1,000,000 | 1 | 11.1 | 13 | 10.6 | 27 | 15.5 | 19 | 23.2 | 60 | 15.5 |
| 1,000,100 - 2,000,000 | 1 | 11.1 | 6 | 4.9 | 25 | 14.4 | 12 | 14.6 | 44 | 11.3 |
| 2,000,100 - 5,000,000 | 0 | .0 | 16 | 13.0 | 10 | 5.7 | 7 | 8.5 | 33 | 8.5 |
| More than 5,000,000 | 0 | .0 | 5 | 4.1 | 2 | 1.1 | 3 | 3.7 | 10 | 2.6 |
| Total | 9 | 100 | 123 | 100 | 174 | 100 | 82 | 100 | 388 | 100 |

Thus, if we compare health care expenditure over the past year with the amount of money these households would pay for being a CBHI member, we find that these households pay more for health care costs than they would pay for CBHI membership. For example, the contribution for membership of the Khemara CBHI would be: a family of one member pays US$2 per month (US$24 per year); a family of two to four persons pays US$3.50 per month (US$42 per year); a family of five to seven persons pays US$4.50 per month (US$54 per year); and a family of eight or more pays US$5 per month (US$60

per year). The table below compares the cost of health care from out-of-pocket payments with the cost of paying for CBHI, by household size.

| Family size | Pay out of pocket per year | Pay for CBHI per year | % that would be saved |
|---|---|---|---|
| 1 person | US$35 and more | US$24 | 31 |
| 2-4 persons | US$75 and more | US$42 | 44 |
| 5-7 persons | US$125 and more | US$54 | 57 |
| 8 or more persons | US$125 and more | US$60 | 52 |

The table above demonstrates clearly that all households would save a substantial amount of money if they paid contributions to CBHI rather than paying out of their own pocket for health care costs. Furthermore, paying for CBHI would help to protect households that have borrowed money from others to pay for health care costs. This study found that 15.8% of non-poor households and 44.4% of poor households had borrowed money to pay for health care costs over the past year. If these households paid for CBHI on a monthly basis, they would not have ended up borrowing money at a high interest rate in order to pay for their medical costs, especially poor households.

# 4. Conclusion

The results of this study show that more than 10% of households, both poor and non-poor, living in Russei Keo district on the outskirts of Phnom Penh city, have suffered from major illness over the past year, including HIV/AIDS.

## 4.1 Household health care costs and financing

- The socioeconomic impact of major illness upon these households includes high expenditure for health care costs, delayed treatment owing to lack of financial means, falling into debt because of health care costs, and loss of income owing to the illness severity. The poor have to spend as much as the better off on health care; high costs have lead to increased poverty.
- The main financial resource to pay for health care is in the form of out-of-pocket payments, coming from saving and wages.
- A high proportion of households, especially the poor, end up borrowing money to pay for their health care. To a certain extent, this has the potential to bring the 'not so poor' into poverty and make the poor even poorer, as the directly concerned dip into their assets, savings and credit, and the indirectly concerned (family) share the burden, which increases their poverty,
- The majority of households in the community do not have any financial support from official sources for health care. Most rely on informal sources such as family and relatives for support in paying for health care.

## 4.2 Community-based health insurance

- Evidence from this study suggests that little information on CBHI has been disseminated to the community. Most people have heard of the scheme but their knowledge and perceptions are still scant.
- People are still doubtful about how the scheme works. If we want the scheme to work and be effective, it is important to understand trust within and between communities, health care providers and third-party bodies.
- Although some have expressed willingness to pay for CBHI membership, they do not understand the principles of insurance, so are still stuck with the notion of winning and losing: 'I should reap more than I sow'.
- Based on information on out-of-pocket health care costs provided during the survey, compared with potential costs for the same households to CBHI, savings of between 30% and 50% could be made. Furthermore, membership of CBHI would allow them to seek treatment quickly from a certified medical facility, instead of 'shopping around' and waiting for appropriate treatment.
- As CBHI makes contractual arrangements with public health care facilities, this contributes to reinforcing the role of the public sector, quality of health care and financing of public health care facilities.

## 4.3 Complementary community social protection

- HIV and AIDS positive households living in this community have access to HIV-related services free of charge, such as treatment and social care, but they have little access to social protection mechanisms and livelihood activities, a situation which is further burdened by the severity of the health condition. Even though patients can access HIV-related services, in-depth interviews showed that the majority of HIV/AIDS-affected households are in debt owing to health care costs.
- HIV/AIDS positive households are also in debt for health care despite the free treatment and the social care and assistance they receive. They are still in need of

financial support from informal sources such as relatives to help pay regularly for their health care.

- Thus, without formal support, such as CBHI, as they are paying out of pocket than would have to pay for CBHI, these households will fall into and get deeper into poverty owing to health care costs.

# 5. Recommendations

## 5.1 Access to the CBHI by the community

Evidence from this study shows that households that suffered from major illness over the past year spent a high proportion of their savings and borrowed from others to pay for health care, and the majority of these households did not have any social protection, e.g. HEF or CBHI, to help protect them from catastrophic health expenditures. Although CBHI is being implemented by Khemara in the area, few people are aware of the scheme, owing to lack of information and cultural barriers related to people trusting the scheme and health care providers. Several steps should be taken to improve this situation:

- Information on the CBHI should be disseminated widely in the community through meetings with the local authorities, particularly the village chief, so that people have a deeper understanding of and gain trust in the scheme.
- A community network should be established similar to the one used in the HEF of the USG, called the user group. This community network can help in recruiting beneficiaries and in building trust between people in the community and CBHI implementers.
- Khemara should be more active in carrying out follow-up and assessment of CBHI members' satisfaction when they use the card in hospital. It is critical to find out about problems encountered with health care providers and in claiming benefit from the scheme. Often, problems encountered are heard about very fast in the community, which leads to people distrusting the scheme. Also, Khemara needs to inform community members that the health care services are dispensed by public health providers, not the CBHI scheme, and that the CBHI scheme only facilitates access to these services.

## 5.2 Integrating medical treatment and social care for HIV/AIDS

Although all HIV/AIDS households receive medical treatment and social care and support, this comes from separate organizations, which often makes it difficult to coordinate delivery to households in a manner that is timely and consistent with household needs. There is a need to set up a well coordinated system or to develop an integrated strategy for treatment and social care.

## 5.3 Social protection mechanism for HIV/AIDS: the role of CBHI

- In this study, it was found that all HIV/AIDS positive households experience high health care expenditures (i.e. paying for transportation for treatment, follow-up visits, treatment of opportunistic infections at private clinics, or treatment of other family members in the household), despite the fact that those living with HIV/AIDS receive free treatment and social support from different institutions. It was also found that the majority of these households have no access to a CBHI scheme and other livelihood activities as social protection. Therefore, there is a need to provide social protection to these households in the form of CBHI or other options, such as the HEF.
- In terms of accessing livelihoods for those vulnerable to HIV/AIDS and HIV positive households, it is recommended that vocational training skills be provided to the affected person or family member, so they can generate income for their household.
- Access to community social protection mechanisms, such as CBHI or HEF, should be a specific issue discussed at policy level, since health care is an essential element in HIV vulnerability at household level. Easy and on-time access to health care has an impact on household level of health, on household expenditure, on poverty, on quality of life and on stigma.

## 5.4 Further research on the issue of trust for CBHI

Further research is needed to investigate specific aspects of trust, and what influences local people to become members of CBHI, as this is one of the critical aspects in enabling people to understand and trust the scheme.

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# Annex 1: Reported Illness Past Month

| | Total | | Male | | Female | | P-value* |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | Chi-square |
| TB | 6 | .8 | 5 | 1.6 | 1 | .2 | |
| Diarrhea | 18 | 2.3 | 13 | 4.1 | 5 | 1.1 | |
| Dengue | 2 | .3 | 1 | .3 | 1 | .2 | |
| HIV/AIDS | 3 | .4 | 1 | .3 | 2 | .4 | |
| Hypertension | 59 | 7.5 | 16 | 5.0 | 43 | 9.1 | |
| Diabetes | 24 | 3.0 | 13 | 4.1 | 11 | 2.3 | |
| Disease of urinary system | 6 | .8 | 3 | .9 | 3 | .6 | |
| Disease of the heart | 17 | 2.1 | 2 | .6 | 15 | 3.2 | |
| Cough/respiratory | 336 | 42.5 | 144 | 45.0 | 192 | 40.8 | |
| Stomach pain | 35 | 4.4 | 15 | 4.7 | 20 | 4.2 | |
| Fever | 49 | 6.2 | 24 | 7.5 | 25 | 5.3 | |
| Typhoid | 11 | 1.4 | 3 | .9 | 8 | 1.7 | |
| Joint pain | 40 | 5.1 | 16 | 5.0 | 24 | 5.1 | |
| Weakness and tiredness | 59 | 7.5 | 14 | 4.4 | 45 | 9.6 | |
| Hemorrhage | 2 | .3 | 0 | .0 | 2 | .4 | |
| Hepatitis/liver inflammation | 11 | 1.4 | 6 | 1.9 | 5 | 1.1 | |
| Calcium inflammation of gallbladder | 4 | .5 | 2 | .6 | 2 | .4 | |
| Tenia | 1 | .1 | 0 | .0 | 1 | .2 | |
| Uterus inflammation/ uterus pain | 4 | .5 | 0 | .0 | 4 | .8 | |
| Tetanus | 1 | .1 | 1 | .3 | 0 | .0 | |
| Bronchitis/lung pain/ asthma | 7 | .9 | 3 | .9 | 4 | .8 | |
| Meningitis | 2 | .3 | 0 | .0 | 2 | .4 | |
| Mental health | 8 | 1.0 | 3 | .9 | 5 | 1.1 | |
| Abdomen pain | 3 | .4 | 0 | .0 | 3 | .6 | |
| Hemorrhoid | 7 | .9 | 5 | 1.6 | 2 | .4 | |
| Swollen penis | 1 | .1 | 1 | .3 | 0 | .0 | .008 |
| growing bone in back of the leg | 1 | .1 | 1 | .3 | 0 | .0 | |
| Otitis | 3 | .4 | 1 | .3 | 2 | .4 | |
| Headache | 11 | 1.4 | 1 | .3 | 10 | 2.1 | |
| Fat in blood vessel | 1 | .1 | 0 | .0 | 1 | .2 | |
| Throat inflammation/throat tumor | 4 | .5 | 1 | .3 | 3 | .6 | |
| Dermatitis | 17 | 2.1 | 6 | 1.9 | 11 | 2.3 | |
| Teeth pain | 5 | .6 | 3 | .9 | 2 | .4 | |
| Leg pain/broken leg/clavicle | 6 | .8 | 4 | 1.3 | 2 | .4 | |
| Reaction of medicine | 1 | .1 | 1 | .3 | 0 | .0 | |
| Eye pain | 1 | .1 | 0 | .0 | 1 | .2 | |
| Painful swelling on hand/foot | 2 | .3 | 1 | .3 | 1 | .2 | |
| Blister on mouth | 1 | .1 | 1 | .3 | 0 | .0 | |
| Swollen face | 2 | .3 | 0 | .0 | 2 | .4 | |
| Hypoglycemia | 1 | .1 | 0 | .0 | 1 | .2 | |
| Toxic food | 1 | .1 | 0 | .0 | 1 | .2 | |
| nasal irritation | 5 | .6 | 2 | .6 | 3 | .6 | |
| Boil | 2 | .3 | 2 | .6 | 0 | .0 | |
| Cyst in armpit | 1 | .1 | 0 | .0 | 1 | .2 | |
| Bone decay | 1 | .1 | 0 | .0 | 1 | .2 | |
| Anemia | 1 | .1 | 1 | .3 | 0 | .0 | |
| Lymphadenopathy | 2 | .3 | 2 | .6 | 0 | .0 | |
| Virginal discharge | 1 | .1 | 0 | .0 | 1 | .2 | |
| Neck cancer | 1 | .1 | 0 | .0 | 1 | .2 | |
| Other | 4 | .5 | 2 | .6 | 2 | .4 | |
| **Total** | **791** | **100.0** | **320** | **100.0** | **471** | **100.0** | |

# Annex 2: Serious Illness Past Year (Qualified Diagnosis)

| | Total | | Male | | Female | | P-value* |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | Chi-square |
| No diagnosis | 11 | 4.3 | 8 | 7.8 | 3 | 1.9 | |
| HIV/AIDS | 4 | 1.6 | 1 | 1.0 | 3 | 1.9 | |
| TB | 7 | 2.7 | 5 | 4.9 | 2 | 1.3 | |
| Diabetes | 22 | 8.6 | 11 | 10.8 | 11 | 7.1 | |
| Hypertension | 61 | 23.8 | 18 | 17.6 | 43 | 27.9 | |
| Kidney disease | 4 | 1.6 | 3 | 2.9 | 1 | .6 | |
| Heart disease | 20 | 7.8 | 3 | 2.9 | 17 | 11.0 | |
| Mental disease | 9 | 3.5 | 4 | 3.9 | 5 | 3.2 | |
| Paralysis | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Surgery | 5 | 2.0 | 4 | 3.9 | 1 | .6 | |
| Complication with delivery | 1 | .4 | 0 | .0 | 1 | .6 | |
| Asthma/bronchitis/lung pain | 11 | 4.3 | 4 | 3.9 | 7 | 4.5 | |
| Gastric ulcer | 22 | 8.6 | 9 | 8.8 | 13 | 8.4 | |
| Hepatitis | 10 | 3.9 | 5 | 4.9 | 5 | 3.2 | |
| Medicine reaction | 1 | .4 | 0 | .0 | 1 | .6 | |
| Fever | 1 | .4 | 0 | .0 | 1 | .6 | |
| Nose irritation | 4 | 1.6 | 0 | .0 | 4 | 2.6 | |
| Meningitis | 4 | 1.6 | 2 | 2.0 | 2 | 1.3 | |
| Joint pain | 9 | 3.5 | 5 | 4.9 | 4 | 2.6 | |
| Hemorrhoid | 6 | 2.3 | 4 | 3.9 | 2 | 1.3 | |
| Calcium in gallbladder | 4 | 1.6 | 1 | 1.0 | 3 | 1.9 | |
| Apterygial | 1 | .4 | 0 | .0 | 1 | .6 | |
| Otitis | 1 | .4 | 0 | .0 | 1 | .6 | |
| Eye pain | 1 | .4 | 1 | 1.0 | 0 | .0 | .074 |
| Fat in blood vessel | 1 | .4 | 0 | .0 | 1 | .6 | |
| Cyst in neck | 1 | .4 | 0 | .0 | 1 | .6 | |
| Typhoid | 7 | 2.7 | 2 | 2.0 | 5 | 3.2 | |
| Cholera | 2 | .8 | 0 | .0 | 2 | 1.3 | |
| Wound mouth/break rib/cut vessel hand | 7 | 2.7 | 4 | 3.9 | 3 | 1.9 | |
| Uterus irritation | 1 | .4 | 0 | .0 | 1 | .6 | |
| Dengue | 2 | .8 | 0 | .0 | 2 | 1.3 | |
| Headache | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Hypoglycemia | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Hemorrhage | 2 | .8 | 0 | .0 | 2 | 1.3 | |
| Pharynges | 1 | .4 | 0 | .0 | 1 | .6 | |
| Blood takes long time to be frozen | 1 | .4 | 0 | .0 | 1 | .6 | |
| Cyst in armpit | 1 | .4 | 0 | .0 | 1 | .6 | |
| Decay bone | 1 | .4 | 0 | .0 | 1 | .6 | |
| Dermatitis | 1 | .4 | 0 | .0 | 1 | .6 | |
| Anemia | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Lymphadenopathy | 2 | .8 | 2 | 2.0 | 0 | .0 | |
| Boil on head | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Malaria | 1 | .4 | 1 | 1.0 | 0 | .0 | |
| Neck cancer | 1 | .4 | 0 | .0 | 1 | .6 | |
| Total | 256 | 100.0 | 102 | 100.0 | 154 | 100.0 | |

# Annex 3: Research Instruments

## Household survey

Interview date:

Place of Interview:

District: _____

Commune: _____

Village: _____

Household code: _____

Name of interviewer: _____

Informed consent of interviewee: **YES** ☐ **NO** ☐

| | | |
|---|---|---|
| | Do your own, pay rent, or have other arrangements for living in this house? | 1. Own the house<br>2. Rent<br>3. Allowed to stay for free<br>4. Other (specify) |
| | How long have you been living in Phnom Penh? | _____ Months<br>_____ Years |
| | How long have been living in this community? | _____ Months<br>_____ Years |

## *Section A: Demographic information*

| No | **A1**<br>Name (used only for identification during interview) | **A2**<br>Sex<br>1 male<br>2 female | **A3**<br>Age | **A4**<br>Relation to household head[6] | **A5**<br>Main activity[7] | **A6**<br>Daily income (Riel) | **A7**<br>Highest level of education completed<br>1 none<br>2 primary<br>3 secondary<br>4 higher<br>99 DK | **A8**<br>Can read and write?<br>1 yes<br>2 no | **A9**<br>If and type of disability[8]<br>1 yes<br>2 no | **A 10**<br>If and type of chronic diseases[9] | **A11**<br>If and cause of death in HH in past year<br>1 road accident<br>2 disease<br>3 murder<br>4 other | **A12**<br>How many years person living in household |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | | | | | | | | | | | |
| 02 | | | | | | | | | | | | |
| 03 | | | | | | | | | | | | |
| 04 | | | | | | | | | | | | |
| 05 | | | | | | | | | | | | |
| 06 | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | |
| | **Total A =** | | | | **Total income** | | | | | | | |

[6] 1. head; 2. spouse; 3. son; 4. daughter; 5 son-in-law; 6. daughter-in-law; 7. grandchild; 8. parent; 9. parent-in-law; 10. brother/sister; 11. nephew/niece; 12 other relative; 13. other

[7] 1. seller at market; 2. construction labor/worker; 3. motor taxi; 4. civil servant; 5. skilled worker; 6. unskilled worker; 7. housewife; 8. unemployed; 9. student; 10. recycling collector; 11. self-employed at home; 12 street vendor; 13 other

[8] 1. blindness; 2. deafness; 3. muteness; 4. paralysis; 5. loss of one hand; 6. loss of foot/leg; 7. other (specific)

[9] HIV/AIDS; 2. TB; 3. diabetes; 4. hypertension; 5. kidney disease; 6. heart disease; 7. mental disease; paralysis; 8. other

## *Section B: Poverty assessment*

**B1: Household status**

| **Sign of poverty** | **1 point for each condition** |
|---|---|
| 1. If in the HH no one could earn income (*from Section A*) | |
| 2. If interviewee is alone and is seriously ill (*from Section A*) | |
| 3. If no one in HH can read and write (*from Section A*) | |
| **4. For every seriously ill person in the HH** (*need to ask*) | |
| 5. For every disabled person in the HH (*from Section A*) | |
| 6. If single mother with child less than 16 years (*from Section A*) | |
| **Total B1** | |

**B2: Hunger in household**

| | | | |
|---|---|---|---|
| Has there been hunger in this HH during the past three months because of lack of food?<br><br>(*Write down special cases, e.g. borrow rice*) | Never | 0 point | **B2** |
| | Sometimes | 1 point | |
| | Often | 4 point | |
| | All the time | 5 point | |

**B3: Housing condition**

| | **1 point for each condition** |
|---|---|
| 1. No home/rent less than 80,000 Riel (*need to ask*) | |
| 2. Roof of rusty corrugated iron/plastic bags (*observation)* | |
| 3. Floor is earth or broken wood (*observation*) | |
| 4. Walls are leaves or poor condition wood (*observation*) | |
| 5. House is often flooded (*need to ask*) | |
| **Total B3** | |

**B4: Last month's expenditure (estimations) (need to ask)**

| | | **Circle one** | **Total per month** |
|---|---|---|---|
| 1. Water | | per day/week/month | |
| 2. Rice | | per day/week/month | |
| 3. Food | | per day/week/month | |
| 4. Cooking fuel | | per day/week/month | |

| | | | |
|---|---|---|---|
| 5. Rent of house/land | | per day/week/month | |
| 6. Gasoline | | per day/week/month | |
| 7. Mobile phone | | per day/week/month | |
| 8. School fees | | per day/week/month | |
| 9. Clothes | | per day/week/month | |
| 10. Transport | | per day/week/month | |
| 11. Electricity | | per day/week/month | |
| 12. Ceremony | | per day/week/month | |
| 13. Other payments | | per day/week/month | |
| | | **Total B4** | |

**B5: Household assets (need to ask)**

| Assets | Numbers | Value estimation |
|---|---|---|
| 1. Water jars | | |
| 2. Chicken | | |
| 3. Pigs | | |
| 4. Cows | | |
| 5. Other livestock, fish | | |
| 6. Bicycle | | |
| 7. Motorbike | | |
| 8. Radio/music player | | |
| 9. TV | | |
| 10. Large batteries | | |
| 11. Electrical materials | | |
| 12. Computer | | |
| 13. Other valuables | | |
| | **Total B5** | |

**B6: Household debt (need to ask)**

| | |
|---|---|
| 1. Last month, did you borrow any money? (new loan) | 1. Yes<br>2. No |
| 2. If yes, how much? | _____ Riel<br>_____US$ |
| 3. Do you still have debt that you did not pay off before last month? | 1. Yes<br>2. No |

| | |
|---|---|
| 4. If yes, how much? (old loan) | _____ Riel<br>_____US$ |
| Total (new loan + old loan) **B6** | |

**Assessment of household condition**

| | | |
|---|---|---|
| Condition 1 | Is B1 ≥ 2? | Yes/no |
| Condition 2 | Is B2 > 3? | Yes/no |
| Condition 3 | Is B3 ≥ 2? | Yes/no |
| Condition 4 | Is B4 divided by A ≤ 80,000 Riel? | Yes/no |
| Condition 5 | Is B5 - B6 < 500,000 Riel? | Yes/no |
| **Total # of 'yes'** | | |

**If 3 out of 5 questions are answered with 'yes' , the HH is poor**

| **Poor** | **Non-poor** |
|---|---|

### *Section C: Details of health problems and health-seeking behavior*

| Name (used only for identification during interview)<br><br>(Use code from Section A) | **C1**<br><br>Have they been sick in past month?<br>1 yes<br>2 no (skip to D1) | **C2**<br><br>**If sick:** was the problem:<br>1 acute<br>2 chronic | **C3**<br><br>**If sick:** diagnosis (if available) or main symptom[10]<br><br>(If chronic go to Section D) | **C4**<br><br>**If sick:** how long have they been sick? (# of days) | **C5**<br><br>**If sick:** how long did they wait until treatment sought? (# of days) | **C6.**<br><br>**Reasons for waiting**<br>1 No money<br>2 Don't know where to go<br>3 Illness not serious<br>4 Opportunity cost<br>5 No transport<br>6 Distance | **C7**<br><br>**If treatment sought:** where did they seek the *first* care/ treatment?[11]<br><br>(After first treatment, was there a second treatment? If no, skip to C9) | **C8**<br><br>**If second:** where did they seek the *second* care/ treatment?<br><br>(After second treatment, was there a third treatment? If no, skip to C9) | **C9**<br><br>**If third:** where did they seek the *third* care/ treatment? | **C10**<br><br>**How much** in total was spent on *first* treatment?<br>1 transport<br>2 treatment & drugs<br>3 free | **C11**<br><br>**How much** in total was spent on *second* treatment?<br>1 transport<br>2 treatment & drugs<br>3 free | **C12**<br><br>**How much** in total was spent for *third* treatment?<br>1 transport<br>2 treatment & drugs<br>3 free |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

[10] 1. malaria; 2. TB; 3. darrhea; 4. dengue; 5. HIV/AIDS; 6. hypertension; 7. diabetes; 8. emergency obstetrics; 9. disease of urinary system; 10. disease of the heart;11. cough/respiratory; 12. stomach pain; 13. fever; 14. typhoid; 15. joint pain; 16. weakness and tiredness; 99. other (describe)

[11] 1. national hospital in Phnom Penh; 2. municipal hospital; 3. health center; 4. outreach; 5. visit by trained health worker; 6. private clinic; 7. private pharmacy; 8. NGO facility; 9. TBA/VHW; 10. drugstore/shop/trader; 11. *kru khmer*; 12. monk/religious faith healer; 13. treatment abroad; 14. did not seek care; 15. other (specify)

### *Section D: Members with serious health problems*

**Have any household members (living here) suffered from a serious illness or disability over the past year?**

| | **D1** | **D2** | **D3** | **D4** | **D5** | **D6** | **D7** | **D8** | **D9** |
|---|---|---|---|---|---|---|---|---|---|
| Name (used only for identification during interview)<br><br>(Use code from Section A)<br><br>(If none, skip to Section G) | Did a qualified provider give them a diagnosis?<br>1 yes<br>0 no<br><br>(If yes, enter diagnosis) [12] | Did they receive any inpatient treatment?<br><br>1 yes<br>2 no (skip to D7) | **If yes:** how many days did they spend as an inpatient (in total over the year)? | **If yes:** where did they receive inpatient treatment?<br>1 national hospital<br>2 municipal hospital<br>3 health center<br>4 private clinic<br>5 NGO facility<br>6 other<br>(multiples) | Were they told by a qualified provider that they needed inpatient care urgently but did not follow this advice?<br>1 yes<br>2 no<br>3 DK<br><br>(If 2, 3 skip to D9) | **If yes:** why did they not obtain inpatient care?<br>1 cost<br>2 distance<br>3 other<br>99 DK | How much money did they or other household members spend in total on drugs to treat their condition (over past year)?<br>0 free<br>99 DK | Were they prescribed drugs by a qualified provider but did not purchase them?<br>1 yes<br>2 no<br>3 DK<br><br>(If 2, 3 skip to E) | **If yes:** why were these drugs not purchased?<br>1 cost<br>2 not available at pharmacy<br>3 getting new drug<br>4 DK |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

1. HIV/AIDS; 2. TB; 3. diabetes; 4. hypertension; 5. kidney disease; 6. heart disease; 7. mental disease; 8. paralysis; 9. surgery; 10. complication with delivery; 11. burn; 12 other (specify)

## *Section E: Social impact of illness*

**Ask for each member identified in Section D as having a serious health problem**

| | **E1** | **E2** | **E3** | **E4** | **E5** | **E6** | **E7.** |
|---|---|---|---|---|---|---|---|
| Name (used only for identification during interview)<br><br>(Use code from Section A) | To what degree does the illness disturb the sick person's ability to work?<br>1 lightly<br>2 moderately<br>3 severely<br>99 none | Did they require substantial care for extended periods by other household members?<br>0 no<br>(otherwise enter total time in months) | **For those of working age:** were they unable to work normally for extended periods?<br>0 no<br>(otherwise enter total time in months) | Did other members of the household have to spend substantial time doing productive tasks that would normally have been done by others who were sick or disabled?<br>0 no<br>(otherwise enter total time in months) | Did other members of the family have to spend substantial time doing household tasks that would normally have been done by others who were sick or disabled?<br>0 no<br>(otherwise enter total time in months) | Did children have to stop going to school to take care of seriously ill person?<br>1 yes<br>2 No | Do you have to work because of ill people in the family?<br>1 yes<br>2 no |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Injury or death in an accident in the past 12 months**

| | |
|---|---|
| Have any household members died during the last year? 1 yes 2 no | |

| Name (used only for identification during interview)<br>(Use code from Section A) | **Cause of death** |
|---|---|
| | |
| | |
| | |

## *Section F: Support for members with serious health problems*

**Ask for each member identified in Section D2 as having a serious health problem:**

| Name (used only for identification during interview) | No. (Enter code from first column of Table B1 or Table B2) | Did they receive financial help from any official source, either government or NGO? 0 no 1 HEF 2 exemption from user fee 3 local authorities 4 NGO | | | Did they receive assistance from any other source outside the household? 0 no 1 family 2 friends 3 other (specify) 9 DK | **If yes:** roughly how much money did they receive? |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | |
| | | | | | | |
| | | | | | | |
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## *Section G: Financial impact of illness*

| | | |
|---|---|---|
| **G1** | Over the past year, can you give an indication how much money was spent on direct costs for health care in your household? | 1. Yes<br>2. No<br>3. DK *(if 2 and 3 go to G4)* |
| **G2** | **If yes**, roughly how much was spent in total over the year? | _____ Riel<br>_____ US$ |
| **G3** | Where did you get the money to pay for your health care over the year?<br>*(multiple answer)* | 1. From savings<br>2. From wages<br>3. Reduce expenditure on food<br>4. Sold household goods<br>5. Sold production tools<br>6. Sold land/house<br>7. Sold livestock<br>8. Sought additional paid work<br>9. Help from relatives<br>10. Help from official source<br>11. Children from school to work<br>12. Other (specify _____ ) |
| **Debt for health care costs** | | |
| **G4** | Over the past 12 months did you borrow money from others to pay for your health care costs? | 1. Yes<br>2. No (go to Section H) |
| **G5** | **If borrowed money**, how much did you borrow? | _____ Riel<br>_____ US$ |
| **G6** | Who lent you the money?<br>*(multiple answer)* | 1. Relative<br>2. Friend<br>3. Neighbor<br>4. Moneylender<br>5. Bank (specify _____ )<br>6. Community credit<br>7. Owe to provider (clinic)<br>8. Other (specify _____ ) |
| **G7** | **If moneylender**, what is your relationship with the moneylender? | 1. Neighbor<br>2. Friend<br>3. Relative<br>4. Other (specify _____ ) |

| | | |
|---|---|---|
| **G8** | What did you use for collateral?<br>*(multiple answer)* | 1. House<br>2. Land<br>3. Motorcycle<br>4. Jewelry<br>5. Other (specify _____)<br>99. No collateral used |
| **G9** | What types of loan are taken?<br>*(multiple answer)* | 1. Daily<br>2. Weekly<br>3. Monthly<br>4. Yearly<br>5. Other (specify _____ ) |
| **G10** | Did the money you borrowed have interest? Did you have to pay interest on the loan? | 1. Yes<br>2. No (go to G13) |
| **G11** | How much was the interest? (in percent or amount) | _____daily<br>_____weekly<br>_____monthly<br>_____yearly<br>99. DK |
| **G12** | How long have you borrowed the money? Or when was the loan taken? | _____(days)<br>_____ (months) |
| **G13** | Did you pay off your debt? | 1. Yes<br>2. No (skip to G16) |
| **G14** | If yes, how did you manage to pay off your debt?<br>*(multiple answer)* | 1. Pay daily<br>2. Pay monthly<br>3. Pay weekly<br>4. Pay whenever have the money<br>5. Sell equipment/house/land<br>6. Work to pay off the debt<br>7. Still have debt |
| **G15** | **If paid off debt**, how long did it take your household to pay it off? | _____(days)<br>_____ (months) |
| **G16** | Over past 12 months, how many times in total did you borrow money to pay for your health care costs? | 1. Once<br>2. More than 1 time |
| **G18** | How much is your current debt for health care cost? | _____ Riel<br>_____ US$ |

***Section H: Community-based health insurance (CBHI)***

| | | |
|---|---|---|
| **H1** | Does your household have social health insurance or CBHI? | 1. Yes<br>2. No<br>99. DK |
| **H2** | Does your household pay for CBHI (SKY) | 1. Paid by yourself<br>2. Paid by someone else for you (__)<br>99. DK |
| **H3** | If yes, how much do you pay for SKY? | _____ Riel |
| **H4** | How long have you been a member? | _____(months)<br>_____ (years) |
| **H5** | Since your household has the membership card, have you ever used it? | 1. No, never (skip to G24)<br>2. Yes, but only once<br>3. Yes, several times |
| **H6** | **If yes**, when do you use your membership card? (*multiples*) | 1. Use right away when family member is sick<br>2. Use when the sickness get worse<br>3. Use only for minor illness<br>4. Use only for serious illness<br>5. Other (specify _____) |
| **H7** | For what kind of sickness do you use your CBHI membership card? | 1. Minor illness (specify _____ )<br>2. Serious illness (specify _____ )<br>3. Acute disease (specify_____ )<br>4. Chronic disease (specify _____ )<br>5. Normal birth delivery<br>6. Complicated birth delivery |
| **H8** | **What other costs are not covered by CBHI?** | 1. Transportation<br>2. HIV testing<br>3. Food for hospital stay<br>4. Other |

| | | |
|---|---|---|
| **H9** | **Before you had your CBHI card**, where did you or family member usually go for medical treatment when sick? | 1. National hospital in Phnom Penh<br>2. Municipal hospital<br>3. Health center<br>4. Outreach<br>5. Visit by trained health worker<br>6. Private clinic<br>7. Private pharmacy<br>8. NGO facility<br>9. TBA/VHW<br>10. Drugstore/shop/trader<br>*11. Kru khmer*<br>12. Monk/religious faith healer<br>13. Treatment abroad (country _____)<br>14. Other (specify _____)<br>15. Did not seek care<br>16. Referral hospital (district /province) |

## *Section I: Knowledge of HIV/AIDS*

| | | |
|---|---|---|
| **I1** | Do you know of the illness called AIDS? | 1. Yes<br>2. No<br>99. DK |
| **I2** | Do you know of a place where you can get tested for HIV/AIDS? | 1. VCCT<br>2. National hospital in Phnom Penh<br>3. Provincial hospital (RH)<br>4. District hospital<br>5. Health center<br>6. PMTCT site<br>7. Private clinics<br>8. Private laboratory<br>9. Other (specify _____ ) |
| **I3** | Have you ever been tested for HIV/AIDS? | 1. Yes<br>2. No |
| ***I4*** | When was the last time you were tested for the AIDS virus? | 1. Less than 12 months ago<br>2. 12-23 months ago<br>3. 2 or more years ago |
| **I5** | The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required? | 1. Asked for the test<br>2. Offered and accepted<br>3. Required |
| **I6** | Do you know of medical treatment available to treat HIV/ADIS | 1. Yes<br>2. No<br>99. DK |
| **I7** | Do you know where you can get modern medical treatment for HIV/AIDS? | 1. Yes<br>2. No |
| **I8** | **If yes**, where? | 1. National hospital (specify)<br>2. NGO clinic ( _____)<br>3. Private clinic<br>4. Purchase at pharmacy<br>5. Other ( _____ ) |

## Qualitative instrument 1: In-depth interview with HIV/AIDS household

Interview date:

Place of Interview:

District: _____

Commune: _____

Village: _____

Household code: _____

Name of interviewer: _____

## *Section A: Demographic information*

| No | **A1** Name (used only for identification during interview) | **A2** Sex 1 male 2 female | **A3** Age | **A4** Relation to household head[13] | **A5** Main activity[14] | **A6** Daily income (Riel) | **A7** Highest level of education completed: 1 none 2 primary 3 secondary 4 higher 99 DK | **A8** Can read and write? 1 yes 2 no | **A9** If and type of disability[15] 1 yes 2 no | **A10** If and type of chronic disease[16] | **A11** If and cause of death in last 12 months 1 road accident 2 disease 3 murder 4 other | **A12** How many years the person living in the HH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | | | | | | | | | | | |
| 02 | | | | | | | | | | | | |
| 03 | | | | | | | | | | | | |
| 04 | | | | | | | | | | | | |
| 05 | | | | | | | | | | | | |
| 06 | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | |
| | **Total A =** | | | | **Total income** | | | | | | | |

[13] 1. head; 2. spouse; 3. son; 4. daughter; 5 son-in-law; 6. daughter-in-law; 7. grandchild; 8. parent; 9. parent-in-law; 10. brother/sister; 11. nephew/niece; 12 other relative; 13. other

[14] 1. seller at market; 2. construction labor/worker; 3. moto-dup; 4. civil servant; 5. skilled worker; 6. unskilled worker; 7. housewife; 8. unemployed; 9. student; 10. recycling collector; 11. self-employed at home; 12 street venders; 13 other

[15] 1. blindness; 2. deafness; 3. muteness; 4. paralysis; 5. loss of one hand; 6. lost a foot/leg; 7. other (specific)

[16] HIV/AIDS; 2. TB; 3. diabetes; 4. hypertension; 5. kidney disease; 6. heart disease; 7. mental disease; paralysis; 8. other

### *Section B: Access to medical care*

| | Question |
|---|---|
| | How long have you been living with HIV/AIDS? |
| | How long did you have the symptoms before you knew that you have HIV/AIDS? |
| | What symptoms did you have? Did you seek treatment for those symptoms? |
| | How long did you have the symptoms before you had your blood test for HIV? Why did you wait? |
| | Where did you **first** go for the blood test for HIV? |
| | What made you decide to have the blood test for HIV? |
| **Knowledge of availability of service** | |
| | Do you know what treatments are available to treat HIV/AIDS or treatment for OI? |
| | Do you know where you can get modern medical treatment for HIV/AIDS? |
| | **If yes**, where? |
| | How did you know about it? |
| | Were you informed by the doctor about the treatment option and where to go for the treatment? |
| | Did you get the treatment you wanted? |
| | If not, what prevented you from getting it? |
| **Current treatment** | |
| | Are you currently receiving modern medical treatment, counseling, nutrition, or homecare for your disease? |
| | If not, what prevented you from getting it? |
| | **If yes**, what treatment are you currently receiving? |
| | How long have you been on this treatment, counseling, nutrition or homecare? |
| | From where are you getting this medical treatment, counseling, nutrition or homecare? |
| | How did you manage to get it? |
| | How long did it take you to get this treatment, counseling, nutrition or homecare? |
| | How did you manage to pay for these services? |
| | Did you get help from outside sources to pay for your medical treatment? If yes, what? |
| | Do you have side effects with the medication you are taking? What? And what do you do about it? |
| | What kind of sickness do you frequently have? (e.g. cold, diarrhea, malaria or other) |
| | Do you seek treatment of your sickness? |

### *Section C: Access to social support: livelihood resource*

| | |
|---|---|
| | Do you know of any social support program in your community? |
| | Are you currently receiving any social support? |
| | What form of social support do you receive? (probe: microcredit, CBHI, home-based care, counseling etc.) |
| | From what organization do you receive this social support? |
| | Do you receive this support from one or various sources? |
| | How did you manage to get this social support? |
| | How long did it take you to get into the program? |
| | Are you happy with the social care you are getting now? |
| **Receiving integrated care** | |
| | Are you receiving both medical treatment and social care? From one or separate institutions? |
| | ***If not***, what has prevented you from getting both the treatment and the care you want earlier? |
| | What do your family and other people feel about your condition? |
| | What kind of other services do you think are missing in the community? |

### *Section D: Coping mechanism and cost*

| **Payment for health care costs** | |
|---|---|
| | Over the past year, was a large proportion of household income spent on meeting medical costs for you or a family member with HIV/AIDS? |
| | **If yes**, roughly how much was spent? |
| | How do you manage to pay for your medical costs in treating your disease? From what source? |
| | Over the past year, have you ever borrowed money to pay for the cost of your HIV/AIDS treatment? |
| | **If yes**, how much did you borrow from others to pay for your health care cost? |
| | Who lent you the money? |
| | What did you use for collateral? |
| | How much did you borrow? *(old debt)* |
| | Did the money you borrowed have interest? |
| | How much was the interest? |
| | How long have you borrowed the money for? |
| | How did you manage to pay off your debt? |
| **Impact of HIV/AIDS on work ability and household income** | |
| | Do you feel that your disease is preventing you from doing work that you normally did before? |
| | To what degree do you think your disease is disturbing your work ability?<br>1. Not at all<br>2. Slightly<br>3. Severely |
| | Do you think that your household's income has reduced since you and/or family member have been sick? How has it reduced? |

### *Section E: Social protection*

| | |
|---|---|
| | Do you receive any financial assistance to meet your health care cost? (Probe: NGO, government, religious organization, etc.) |
| | Do you know about social health insurance or CBHI? *(if no, then end the interview here)* |
| | Do you have social health insurance or CBHI? |
| | **If yes**<br>• How much do you pay for monthly premium?<br>• Do you pay it by yourself or does someone pay for you?<br>• How many times did you use it since you became a member?<br>• When do you use it?<br>• What kind of benefit did you receive from it?<br>• Do you think it is important that your family have it? |
| | **If no**<br>• Why do you not have it?<br>• Do you think you want to have CBHI?<br>• Are you willing to pay for it?<br>• Are you able to pay for it and how much are you able to pay?<br>• What kind of benefit do you think you might get from it? |

## Qualitative instrument 2: In-depth interview with migrant household

**Note:** All the data on demographic information, poverty status, details of health status, health-seeking behavior, social impact and social assistance for health care can be obtained from the household survey (Instrument 1). For the in-depth interview, questions will be focused on remittances and access to health services.

Interview date:

Place of Interview:

District: _____

Commune: _____

Village: _____

Household code: _____

Name of interviewer: _____

| | Questions |
|---|---|
| | |
| | Where did you originally come from? Srok: _____ Province: _____ |
| | How long have you been living in Phnom Penh? |
| | When did you come to live in this community? |
| | Why did you and/or family members migrate to Phnom Penh? (Probe: job opportunity, live with relatives, no home/land … ) |
| | Do you still have family members living in your village? How many? Who? |
| | How often do you go back to your village? _____ |
| | Do you send money to your family in the village? (How often, how much, to whom?) |
| | In what way do you send the money to your family back home? (By yourself, send it through someone, transfer it via money exchange shop ... ) |
| | For what purpose does your family in the village use the money you send? (Probe: for medical cost, for food, for building house, for small business, etc.) |
| **Access to health services** | |
| | Where do you go for health services when you or family members have serious illness or injury? |
| | Do you receive any financial assistance to meet your health care costs? (Probe: NGO, government, religious organization, etc.) |
| | Do you know about social health insurance or CBHI? *(if no, end the interview here)* |
| | Do you have social health insurance or CBHI? |
| | **If yes**<br>• How much do you pay for monthly premium?<br>• Do you pay it by yourself or does someone pay for you?<br>• How many times did you use it since you became a member?<br>• When do you use it?<br>• What kind of benefit did you receive from it? What benefits are missing?<br>• Do you think it is important that your family have it? If not, why? |
| | **If no**<br>• Why do you not have it?<br>• Do you think you want to have CBHI?<br>• Are you willing to pay for it for your whole family?<br>• Are you able to pay for it and how much are you able to pay?<br>• What kind of benefit do you think you might get from it? |

## Qualitative instrument 3: In-depth interview on serious illness

### *Section A: Illness history*

**Protocol:** Where possible, this interview would typically be undertaken with the individual(s) suffering the illness(es) that lead to the inclusion of the household in the in-depth study. Confidentiality should be respected but it may sometimes be helpful for other family members to be present or to be asked for additional information in a follow-up interview. If so, the interviewer should where possible discuss this with the primary respondent to obtain their permission. When the illness is that of a child, both parents should be interviewed if possible. In all cases, the circumstances of the interview should be recorded, including a list of all those present and which individuals provided different items of information.

**Timeline:** The first stage in the interview should aim to establish the sequence of 'events' from the onset of the illness to the present date. These would include:

- Changes in the symptoms/severity of the illness (including onset & recovery);
- Illness-related changes in normal activities;
- Self-treatment with any type of medicine;
- Outpatient consultations with any type of health provider;
- Inpatient episodes;
- Seeking or obtaining assistance from anyone outside the household;
- Adoption of any form of coping strategy related to the illness;
- Other memorable related events.

The interviewer should start by obtaining a general outline of the sequence of events, asking simple questions such as 'when did you first become aware of the problem?' and 'what happened next?' The timeline should be drawn (either on paper or on the ground) such that the respondent(s) have a visual display which they can amend as the interview proceeds. The next stage is to check that all significant events have been recorded, using a list similar to that provided above. Questions might be of the form: 'were there any other times when you sought advice or treatment from a health provider?' or 'did you use any other medicine or receive other treatments apart from those you mentioned?'

The sequence of events is important – not their precise timing. Indications that one event happened 'soon after' another or 'several months later' would be perfectly adequate.

**Details of individual events:** The aim here is to obtain a fuller understanding of each of the events on the timeline. The task for the researchers is not to ask a set list of questions but to discuss the events in turn and ensure that they have assembled key items of data on each. Some of the information required will have been already obtained in establishing the timeline. Information on one event may be provided when discussing another. The key items of information will include:

**Change in health status**

- Symptoms and severity (specific symptoms / pain, mobility, etc.);
- Limitations on production tasks (duration, constraints);
- Limitations on 'household' tasks (duration, constraints);
- Limitations on 'basic living' tasks (duration, constraints).

**Self- treatment**

- Type of treatment;
- Drugs taken;
- Source of treatment/drugs;
- Cost of treatment/drugs.

**Outpatient consultations**

- Type of provider;
- Distance traveled to provider;
- Did they identify the problem (diagnosis);
- What treatment was prescribed;
- Was the treatment followed;
- Expenses involved: travel/fees/drugs/gifts/other;
- How was money raised;
- Satisfaction with provider.

**Inpatient episodes**

- Type of provider;
- Distance traveled to provider;
- Did they identify the problem (diagnosis);
- Length of stay;
- Reason for discharge;
- Expenses involved: travel/fees/drugs/gifts/other;
- How was money raised;
- Satisfaction with provider.

**Seeking and/or obtaining assistance from anyone outside the household**

- Individual(s) or institution approached;
- Type of help sought;
- Type of help obtained (labor, goods, cash, exemption from charges, etc.);
- Details of help obtained (labor time, quantity of goods, cash amount received, services exempted, etc.);
- Satisfaction with help obtained.

**Asset sales and borrowing**

- Assets sold;
- Money obtained;
- Source of loan;
- Amount of loan.

**Other related events**

- Details of specific events.

**Changing livelihood status**

***Section B: Health status over previous year***

| Member name _____ Member number ***[code number from HH roster in Instrument 1]*** | | | |
|---|---|---|---|

| **Month** | **Limitation (time lost over month)** | | | | | | **Care provided (time over month)** | | **Primary carer** | **Secondary carer** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Production tasks** | | **Household tasks** | | **Basic living tasks** | | | | | | | | |
| **1** | | | | | | | | | | | | | |
| **2** | | | | | | | | | | | | | |
| **3** | | | | | | | | | | | | | |
| **4** | | | | | | | | | | | | | |
| **5** | | | | | | | | | | | | | |
| **6** | | | | | | | | | | | | | |
| **7** | | | | | | | | | | | | | |
| **8** | | | | | | | | | | | | | |
| **9** | | | | | | | | | | | | | |
| **10** | | | | | | | | | | | | | |
| **11** | | | | | | | | | | | | | |
| **12** | | | | | | | | | | | | | |
| | **1. Some limitation**<br>**2. Serious limitation**<br>**3. Complete limitation** | | | | | | **1. Some**<br>**2. Considerable**<br>**3. Constant** | | | | | | |

***Section C: Self-treatment (self or other non-health providers)***

| Member name _____ Member number ***[code number from HH roster in Instrument 1]*** | | | |
|---|---|---|---|

| Month | Source | Location (distance?) | Medicine 1 | | Medicine 2 | | Medicine 3 | | Medicine cost | Other costs | How paid | Satisfaction |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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*** Note injections**

***Section D: Outpatient consultation with any type of health provider***

| Member name _____ Member number ***[code number from HH roster in Instrument 1]*** | | | |
|---|---|---|---|

| Month | Type of provider | Provider number | Location | Diagnosis | Treatment | | Referral | Fees (include drugs) | Other costs | How paid | Satisfaction |
|---|---|---|---|---|---|---|---|---|---|---|---|
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*** Note injections**

***Section E: Inpatient episodes***

| Member name _____ Member number ***[code number from HH roster in Instrument 1]*** | | | |
|---|---|---|---|

| Month | Type of facility | Facility number | Location | Length of Stay | Treatment | Reason for discharge | Fees (including drugs) | Other costs | How paid | Satisfaction |
|---|---|---|---|---|---|---|---|---|---|---|
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*** Note carer in hospital**

## *Section F: Seeking/attaining assistance from anyone outside the family*

| Month (start month) | Source | Financial (cash or kind) | | | Labor | | |
|---|---|---|---|---|---|---|---|
| | | Purpose | Kind | Cash value | Purpose | Duration | Extent |
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| | | | | | | | **1. A little**<br>**2. Moderate**<br>**3. Substantial**<br>**4. Full time** |

**How many categories?**

***Section G: Asset sales and borrowing***

| Month | Asset | Value | Loan | Source | Type | Repayment | Time |
|---|---|---|---|---|---|---|---|
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