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**Internship Report on**

# "Out-of-Pocket Health Expenditure and Financial Resilience among Extremely Poor Households in Bangladesh: A Comparative Study between PKSF's PPEPP-EU Project Households and Households from Microfinance Programme Not Covered by the PPEPP-EU Project"

## SUBMITTED TO

Pathways to Prosperity for Extremely Poor People - European Union (PPEPP-EU)

Palli Karma-Sahayak Foundation (PKSF)

## SUBMITTED BY

Mir Ashfaq Isa

Intern, Palli Karma-Sahayak Foundation (PKSF)

Institute of Health Economics

University of Dhaka

# Declaration

I, Mir Ashfaq Isa, declare that this report titled "Out-of-Pocket Health Expenditure and Financial Resilience among Extremely Poor Households in Bangladesh: A Comparative Study between PKSF's PPEPP-EU Project Households and Households from Microfinance Programme Not Covered by the PPEPP-EU Project" is an original work undertaken by me under the guidance and direct supervision of Md. Rayhan Mostak - Manager (Programme). My internship was conducted at PPEPP-EU project of PKSF as a requirement for the completion of my BSS (Hons), in Health Economics at University of Dhaka.

**I confirm that:**

1. The report presented is original and has been conducted by me in accordance with the ethical standards.

2. Any assistance received during the process has been acknowledged, and the work of others is cited and referenced.

3. I acknowledge that in accordance with PKSF regulations, any violation of academic integrity, such as plagiarism, may potentially lead to significant repercussions.

**Mir Ashfaq Isa**

Session: 2020-2021

Institute of Health Economics

University of Dhaka

# Declaration

I, Md. Rayhan Mostak, Manager (Programme), PKSF and Senior Programme Manager (PPEPP-EU), declare that Mir Ashfaq Isa completed a three-month internship at the PPEPP-EU project of PKSF under my direct supervision, from 26 January, 2026 to 26 April, 2026. I provided guidance and feedback throughout this period. The internship report entitled "Out-of-Pocket Health Expenditure and Financial Resilience among Extremely Poor Households in Bangladesh: A Comparative Study between PKSF's PPEPP-EU Project Households and Households from Microfinance Programme Not Covered by the PPEPP-EU Project" is, to the best of my knowledge, the intern's own original work, based on data collected during the field visits for this study. Furthermore, this report has not been presented elsewhere. I have reviewed the report and consider it suitable for submission.

---

(**Md. Rayhan Mostak**)
Manager (Programme), PKSF
Senior Programme Manager (PPEPP-EU)

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I would like to express my sincere gratitude to the Institute of Health Economics for requiring a three-month internship for recent graduates in health economics. This experience has shown the great value of hands-on experience in the field. Overall, the internship was an invaluable experience that allowed me to apply theoretical concepts to practical situations in the field of health economics, which has significantly enhanced my academic and professional growth.

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I would like to thank HEED Bangladesh and Ad-din Welfare Centre for their support in conducting the field visits and collecting the data. I am also grateful to all the dedicated staff members of the organizations who supported me throughout my work. Special thanks go to Md. Fayzur Rahman (Senior Programme Manager) for his continuous guidance during the data analysis process.

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## Acronyms

| Acronym | Full Form |
|---|---|
| **PKSF** | Palli Karma-Sahayak Foundation |
| **PPEPP-EU** | Pathways to Prosperity for Extremely Poor People – European Union |
| **MFP** | Microfinance Programme |
| **OOPHE** | Out-of-Pocket Health Expenditure |
| **CHE** | Catastrophic Health Expenditure |
| **BDT** | Bangladeshi Taka |
| **CNHP** | Community Nutrition and Health Promoters |
| **DGHS** | Directorate General of Health Services |
| **ECCCP** | Extended Community Climate Change Project |
| **ENRICH** | Enhancing Resources and Increasing Capacities of Poor Households |
| **FCDO** | Foreign, Commonwealth and Development Office |
| **GDP** | Gross Domestic Product |
| **GEML** | Government Essential Medicines List |
| **HIES** | Household Income and Expenditure Survey |
| **IYCF** | Infant and Young Child Feeding |
| **KII** | Key Informant Interview |
| **LMICs** | Low- and Middle-Income Countries |
| **MRA** | Microcredit Regulatory Authority |
| **NGO** | Non-Governmental Organization |
| **PACE** | Promoting Agricultural Commercialization and Enterprises |
| **PRIME** | Programme Initiatives for Monga Eradication |
| **RAISE** | Recovery and Advancement of Informal Sector Employment |
| **RHL** | Resilient Households and Livelihoods |
| **RMTP** | Rural Microenterprise Transformation Project |
| **RTVS** | Referral Transport Voucher Scheme |

| | |
|---|---|
| **UHC** | Universal Health Coverage |
| **WASH** | Water, Sanitation and Hygiene |
| **WHO** | World Health Organization |
| **HEED** | Health, Education and Economic Development |

# Executive Summary

Out-of-pocket health expenditure (OOPHE) accounted for about 73% of current health expenditure in Bangladesh in 2022. For extremely poor households it can lead to catastrophic health expenditure (CHE), distress borrowing, asset sales and a return to poverty. Poverty reduction projects such as PKSF's PPEPP-EU and microfinance programmes (MFP) both target extreme poverty, but little evidence compares how their households cope financially with ill health. This comparative cross-sectional study compared OOPHE and financial-resilience indicators between extremely poor PPEPP-EU households and MFP households not covered by the project in three unions of Dacope Upazila, Khulna. Data came from a structured household survey of 70 purposively selected households (35 per group, 12-month recall), two case studies and four key informant interviews.

Mean monthly OOPHE was BDT 1,765 in the PPEPP-EU group and BDT 3,458 in the MFP group, 49% lower (Mann–Whitney $p = 0.013$). Medicines were the largest cost in both groups (64.1% and 60.5%). CHE (OOPHE above 25% of household income) affected 11.4% of PPEPP-EU and 37.1% of MFP households ($\chi^2$ $p = 0.012$). Descriptively, PPEPP-EU households more often paid from regular income (60.0% vs 31.4%) and less often sold assets (17.1% vs 37.1%) or borrowed from friends or relatives (37.1% vs 51.4%). More took no loan at all (34.3% vs 11.4%), and among borrowers 65.2% of PPEPP-EU and 29.0% of MFP households had repaid from regular income. NGO-loan use was identical (37.1%). In both groups most households (80.0% and 88.6%) expected to rely on loans in a future health emergency.

These findings reflect conditional associations rather than causal effects, limited by a small purposive sample, unmatched comparison groups, lack of baseline data, and unadjusted illness severity. Because most households expect to rely on loans and neither programme offers institutionalised health savings or risk-pooling, these results are inconclusive. They highlight the further need for comprehensive, longitudinal research to evaluate whether integrating community health savings, emergency health loans, subsidised generic medicines, transport support, telemedicine linkages, and health literacy alongside both programme types can genuinely enhance household financial resilience.

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# 1. Introduction

In May, 1990 the Government of Bangladesh officially set up the Palli Karma-Sahayak Foundation (PKSF), a non-profit apex Bangladeshi development institution whose primary role was to alleviate poverty by creating employment. Since its emergence, PKSF has been having a systematic mission to bring about inclusive economic opportunity which made it a core tool in conducting a rural development initiative in the country.

The history of PKSF has been marked by the deepest institutional transformation process where it has undergone a shift in institutional scope of a traditional wholesale-microcredit providing organization to a more holistic development-focused organization. This development has extended its activities to an excess of 20.70 million members spread in all the 64 districts and has increased its interventions in rural livelihoods and community strength.

Some core programs, which the Foundation uses as its foundation strategy, are Jagoron to develop household-based enterprises, Agrosor to develop small businesses, Buniad to reach the extreme poor, Sufolon to embrace agricultural finance, and the flagship programme ENRICH, which includes healthcare, education, and nutrition. These base programmes are supplemented with time-specific specialized projects that are co-financed by international donors such as the multidimensional PPEPP-EU poverty-exit project, the agricultural commercialization programmes PACE and RMTP, the project to raise youth employment RAISE, and the WASH large scale rural interventions.

PKSF has also led the way in environmental stewardship to be a Direct Access Entity to the Green Climate Fund delivering essential climate-adaptation projects that include, but are not limited to ECCCP-Flood, ECCCP- Drought, and the RHL project to vulnerable coastal communities. Through its network of over 200 partner organizations and built on already realized historical success, namely, a programme to protect the reputation of the poor through the PRIME monga-mitigation programme, PKSF still guarantees inclusive economic growth and social protection that protects human dignity across all citizens.

## 1.1 Pathways to Prosperity for Extremely Poor People – European Union Project

The Pathways to Prosperity among Extremely Poor People – European Union (PPEPP-EU) agenda is a complex programme that seeks to address the issue of poverty and it is managed

by PKSF, supported by nineteen selected agencies. Launched in 2019 with the same funding as the United Kingdom Foreign, Commonwealth and Development Office (FCDO) and the European Union (EU), the programme began its modern phase, named PPEPP-EU, in March 2023 after the withdrawal of FCDO funding. The goal of its major objective is forever to reduce an estimated 215,000 households, which is equivalent to a population of about 860,000, individuals off the clink of poverty through inclusion into the mainstream economic growth routes and job prospects.

The programme focuses on three areas in Bangladesh that are climatically prone- the riverine char lands of the north- west, the salinized coastal strip of the south- west and the haor zone of north- east. PPEPP uses an integral approach in the form of six elements that are interconnected including livelihood development (including resilience building and value-chain improvement), nutrition and health, community mobilization, market development, policy advocacy and life-cycle grants. The key aspect of the intervention is its adherence to social inclusion, where marginalized persons like ethnic minorities, individuals with disabilities, the elderly, and female- headed families are specifically targeted. The additional cross-cutting themes (such as disaster and climate resilience, women empowerment, and disability inclusion) are tinted throughout all the activities so that they can enable the participants to continue the progress and be resilient to the subsequent shocks.

## 1.2. Health Financing and Poverty Scenario in Bangladesh

Bangladesh as a lower-middle income country thrives to achieve universal health coverage (UHC); a goal determined by the World Health Organization (WHO) to provide essential and quality healthcare service to all individual without financial hardships however, the rising out of pocket expenditure remains a significant barrier to achieving UHC while increasing financial hardship. Out-of-pocket expenditure (OOPHE) is the amount individuals and households pay to avail healthcare services, buy medicine etc during healthcare need. Bangladesh's public health financing is really poor as in 2023 the current health expenditure was only 2.17% of GDP (Worldbank.org, 2016). As a consequence, individual and household has to pay their own money to avail healthcare. The rising out-of-pocket health expenditure remains a significant concern for households and individuals in low and middle-income countries (LMICs) (Serván-Mori et al., 2022). According to a report the out-of-pocket health expenditure as percentage of current health expenditure is 73% as of 2022 in Bangladesh (Centre for Policy Dialogue (CPD), (2025). This high out-of-pocket expenditure impacts households in several ways such as

welfare reduction and pushing them towards impoverishment. Households tend to borrow money or liquidate their asset to acquire the money for healthcare. A study found that in resource poor rural setting only 46% of the money which family members spent was from savings the rest, 56%, had to be acquired from different informal sources outside the family (Haque et al., 2013). High OOPHE and borrowing and liquidating assets can push households toward poverty. A study found that around 4.50% of the population around 8.61 million was pushed below the national poverty line from OOPHE payments in 2016 (Ahmed et al., 2022). In 2022, the proportion of population facing financial hardship due to OOPHE was 41.70% and proportion of population facing large but non-impoverishing out-of-pocket health expenditure was 14.13% furthermore, the proportion of population facing impoverishing out-of-pocket health expenditure, based on the societal poverty line was 27.57% (Worldbank.org, 2016).

## 1.3 Rationale Behind the Study

Numerous literatures have stated that high out-of-pocket health expenditure (OOPHE) has serious impact on households' financial resilience and pushed households towards poverty in Bangladesh. This impact could be severe for households that are already extremely poor. Government and other organizations have taken interventions to address poverty in the nations and bring the extreme poor out of poverty. There are programmes that looks to bring extreme poor out of poverty with integrated services such as Pathways to Prosperity for Extremely Poor People-European Union (PPEPP-EU) and other programmes which only provides loans to create sustainable income sources for these extreme poor people such as Microfinance Programmes (MFP). But when the OOPHE rises, as proven by literatures, households may face catastrophic impact and go towards poverty and in the cases of extreme poor they may fall into poverty again despite the interventions. This study aims to find and compare OOPHE and Financial Resilience of extreme poor people under the PPEPP-EU project and MFP to see which group has better financial resilience and may prevent the households from falling back into poverty.

## 1.4 Objectives

Considering the context and rationale of this study, the research is poised to address the following research inquiry:

"Out-of-Pocket Health Expenditure and Financial Resilience among Extremely Poor Households in Bangladesh: A Comparative Study between PKSF's PPEPP-EU Project

Households and Households from Microfinance Programme Not Covered by the PPEPP-EU Project" The objective of this study includes two main dimensions:

### 1.4.1 Identify and Compare Out-of-Pocket Health Expenditure

- To estimate average monthly OOPHE and its components in each group.
- To compare OOPHE, and the incidence of CHE at 25% of income threshold, between the two groups.

### 1.4.2 Measure Financial Resilience and Compare

- To measure and compare how households under each group financed health expenditure, whether health-related loans were repaid from regular income, and the main source of funds households expect to use in a future health emergency.

The study is descriptive and comparative. It examines associations with group membership and does not estimate programme effects.

## 2. Literature Review

Bangladesh as a lower middle income thrives to achieve universal health coverage (UHC); a goal determined by the World Health Organization (WHO) to provide essential and quality healthcare service to all individual without financial hardships however, the rising out of pocket expenditure remains a significant barrier to achieving UHC while increasing financial hardship (Sarker et al., 2025). The out-of-pocket expenditure as a percentage of current health expenditure for households in Bangladesh was found to be 73% in 2022 and an upward trend was observed since 2000 moreover, the out-of-pocket expenditure on health per capita at purchasing power parity was observed to be 8$^{th}$ highest among 44 least developed countries (Centre for Policy Dialogue (CPD), 2025). Medicines take up the majority of out-of-pocket spending followed by the amount spent on diagnostics and surgery and the proportion of the cost of medicines in total outpatient expenditures is much higher in rural areas than urban areas. It was found that poorest families used 9.97% of their total household spending on OOPHE on medicines, about two times as much as the wealthiest families, which used 5.86% (Centre for Policy Dialogue (CPD), (2025).

As a consequence of rising OOPHE significant number of households face Catastrophic Health Expenditure (CHE) which is characterized as amount of expenditure on health above a certain limit, normally 10 percent or 25 percent of total household income or 40 percent of non-food

expenditure. When a household reaches such expenditure limit, it is then forced to cut back on basic needs, food, education, and shelter in order to maintain itself. A study found that catastrophic health expenditure (CHE) had an incidence of 14.2% nationally and the incidence of CHE in rural populations was significantly higher 16.3% than 8.6% in urban populations and households with a lower socioeconomic status were disproportionately affected (Khan et al., 2017). The CHE has a marked effect on poverty as stated in a study nearly 5 million people were pushed towards poverty because of catastrophic expenditure in 2016 and those who were already below the poverty line their condition had worsened (Ahmed et al., 2022).

The level of poverty vulnerability was quite high in 2022, and over one-third of Bangladesh residents are at the risk of lapsing into poverty (World Bank, 2025). Because of underfunding from the government, the people of the country mostly use own money to pay for healthcare thus the out-of-pocket expenditure remains high for the country. Dr. Abdur Razzaque Sarker, a researcher at Bangladesh Institute of Development Studies based on the Household Income and Expenditure Survey (HIES) 2022, found that about 3.7 percent of the population had fallen below the poverty line due to out-of-pocket health expenditure, which consisted of 6.13 million people (bids, 2022). A large number of people falling below the poverty line suggests that Bangladesh is still vulnerable to health shocks and healthcare costs causes impoverishment in the country. A study showed that due to out-of-pocket expenditures around 13% households living in high and low disaster-prone areas faces impoverishment (Begum and Hamid, 2021). This study brings up the scenario of the rural and vulnerable area where healthcare costs lead towards poverty.

To cope with health shocks many people are often forced to borrow money, sell assets, or reach out for assistance from friends or relatives, often leading to catastrophes in many households and exploring distress healthcare financing. According to a study, more than 60% of patients uses distress financing because they were forced to take loans, ask their friends and family members to help, and sell a range of assets to soften the effects of high out-of-pocket costs (Sarker et al., 2025). Another study conducted on the rural settings found that around 46% of health cost was managed from savings the rest of the 54% expenditure came from different sources, such as social capital and the selling of family assets also, OOPHE rate was almost 100% in the rural setting (Haque et al., 2013). When OOPHE gets to level which is hard to pay, families are forced to reduce spending on food, housing, utilities etc. which causes severe productivity loss. These findings collectively underscore that health shocks are not isolated

events but structural mechanisms that reinforce and deepen extreme poverty, particularly when households lack access to financial protection instruments.

The promotion of microfinance programmes as poverty alleviation tools and as household economic resilience-building tools is not new. Their effectiveness in buffering health expenditure shocks is disputed, however. According to a study in the American Economic Review, it was found that savings and access to credit moderately enhance the ability of households to manage health expenditures, but are not sufficient on their own to counteract disastrous events (Dupas and Robinson, 2013). In the Journal of Health, Population and Nutrition, evaluated micro-insurance schemes, linked to microfinance programmes, in Bangladesh and found that although they did increase access to basic healthcare among excluded populations, protection against major and high-cost health events remained, critically, inadequate, especially among the ultra-poor (Werner, 2009). Under these circumstances, costs of health services in Bangladesh have consistently been a source of debt even among households involved in microfinance indicating that access to credit is not enough to address OOPHE vulnerability (Ahmed et al., 2011).

On the other hand, the poverty reduction approach, a combination of livelihood transfers, social protection and capacity building have been recognized by people as a good model in reducing extreme poverty. In a pivotal study in science based on six countries found that multifaceted poverty reduction programmes generated significant and enduring changes in consumption, assets and psychological well-being of the ultra-poor (Banerjee et al., 2015). A similar model has been applied in Bangladesh by PKSF (Palli Karma-Sahayak Foundation), which uses its PPEPP-EU (Pathways to Prosperity through Extremely Poor People- EU) to target the extreme poor that are typically locked out of mainstream microfinance. The PPEPP-EU project incorporates the asset transfers, skills training, healthcare linkages, and social mobilisation and expressly recognises health vulnerability as a crucial aspect of extreme poverty (Palli Karma-Sahayak Foundation (PKSF), 2022). In a study it has been observed that the poverty reduction programmes that have health components incorporated are the ones that reduce the risk of the participants returning to extreme poverty upon the exit of the programmes (Hulme and Moore, 2008).

Although much is known OOPHE and its effect on financial resilience and poverty, there is very little direct comparison between the participants of the ultra-poor programme such as PPEPP-EU of PKSF and those of a conventional Microfinance programme on health-related

financial vulnerability. This study addresses that comparative gap within a Bangladesh-specific empirical framework.

# 3. Methodology

## 3.1 Study Design and Study Area

This was a comparative, cross-sectional study using mixed methods: a structured household survey (quantitative), with key informant interviews and two case studies (qualitative). Data were collected at a single point in time during three field visits to Dacope Upazila, from two groups of households: members of PKSF's PPEPP-EU project (the "PPEPP-EU group") and microfinance programme members not covered by the PPEPP-EU project (the "MFP group"). There was no randomisation, no baseline measurement and no follow-up. The design therefore allows the groups to be compared at one time but cannot show whether differences were caused by programme participation.

The study was conducted in Dacope Upazila, Khulna District, a coastal and climate-vulnerable area of south-western Bangladesh with rural communities and limited access to health care. Data were collected in three unions (Kamarkhola, Banishanta and Laudoba), chosen because they contain rural households relevant to the study objectives.

## 3.2 Questionnaire

The study used three different questionnaires to conduct the study in 2 level and acquire both quantitative and qualitative data. The questionnaires were developed after extensive consultations with the research supervisor.

1) Household Level:
   - In-person interview
   - Case Study
2) PPEPP-EU and Microfinance Branch Level
   - ❖ Key-Informant Interview

The questionnaires underwent a 2-stage development process. An initial draft was created and field tested during a pilot study. Essential modifications were made to the questionnaires after the pilot study. The final questionnaires were formed with the approval of research supervisor. The household questionnaire was formed using the Google Form, the KII and Case Study was

paper based questionnaire. The questionnaires then were utilized to gather essential data for this study.

## 3.3 Household Selection Strategy

The researcher did not identify and classify extremely poor households separately. Instead, extreme poverty has been defined within the PPEPP-EU project and the Microfinance Programme (MFP) for the purposes of enrolment of beneficiaries, by applying poverty screening criteria to determine eligibility. The researcher thus only selected the households from these pre-verified lists, and PPEPP-EU and MFP acted as institutional gatekeepers determining household eligibility. This approach ensured that all the selected households were in extreme poverty without the need to undertake a poverty assessment as part of this study, and also reflected the actual programme context in which the study was located. PKSF's Buniad programme members are addressed as MFP members.

**Inclusion Criteria**

- Extreme Poor Households based on PPEPP-EU indicators.
- PPEPP-EU Members who gave consent for data collection.
- Microfinance Programme Members who gave consent for data collection and who are not under PPEPP-EU project.

**Exclusion Criteria**

- Not extreme poor according to PPEPP-EU indicators.
- Those who did not gave consent for data collection.
- Not under the PPEPP-EU project or Microfinance Programme.

## 3.4 Sampling, Sample Size and Data Collection

### 3.4.1 Sampling Approach

Purposive (non-probability) sampling was used because the study required households meeting specific criteria: membership of PPEPP-EU or MFP and extremely poor status according to PPEPP-EU indicators. Using purposive sampling the researcher deliberately selected participants according to the specific needs and objectives of the research. This suits the comparative aim of examining two clearly defined groups side by side. Within the three unions, the partner organisations HEED Bangladesh and Ad-din Welfare Centre used their member lists to contact eligible households and facilitated access to respondents. Only households that met

the inclusion criteria and gave informed consent were enrolled. Because selection was not random, the sample does not represent all extremely poor households in Dacope or Bangladesh, and the findings are indicative rather than generalisable.

### 3.4.2 Sample Size

In total, 70 households were surveyed: 35 in the PPEPP-EU group and 35 in the MFP group. The size of 35 per group was set on the basis of feasibility within the internship period and field logistics, and no formal power calculation was performed.

### 3.4.3 Data Collection

Face-to-face interviews used a structured questionnaire. A 12-month recall period was used for outpatient and inpatient utilisation and expenditure and for asset sales and other coping strategies. This period was chosen because (i) health spending is episodic and irregular, and a shorter window can miss events such as hospitalisation or surgery; (ii) disease conditions vary seasonally, and 12 months covers all seasons; (iii) household income and health spending needed to be measured over the same period so that CHE could be calculated without extrapolating from a shorter window; and (iv) it is consistent with household expenditure surveys and the World Bank Living Standards Measurement Studies, which supports comparison with the wider OOPHE literature.

### 3.4.4 KIIs and Case Studies

Four KIIs were conducted in Kamarkhola Union: Md. Naheed Newaz (Technical Officer – Nutrition), Md. Ashraful Haque (Assistant Technical Officer – Nutrition), Mr. Bappi Sheikh (Assistant Technical Officer – Livelihood) and Mr. Subir Paul (Branch Manager, HEED Bangladesh). Two households, one from each group, were studied as illustrative case studies.

## 3.5 Comparison Group and Comparability

The comparison group consisted of MFP members in the same three unions who are not covered by PPEPP-EU. Selection was guided by three criteria: (i) the same geographic area, so both groups face the same local health facilities and economic environment; (ii) extremely poor status according to PPEPP-EU indicators and (iii) membership of a microfinance programme, so that comparison households had a basic level of financial inclusion similar to PPEPP-EU members. These criteria define a comparison group.

Comparability was assessed descriptively, using the characteristics measured in the survey: household size, monthly income, monthly expenditure and number of ill household members.

## 3.6 Data Analysis

### 3.6.1 Software

The data were cleaned and analysed using descriptive statistics utilizing pivot tables of Microsoft Excel to compare PKSF's PPEPP-EU and Microfinance members. That is, the study used means of out-of-pocket health expenditure (OOPHE), Catastrophic Health Expenditure (CHE) rates, and rates of distress financing. Mann-Whitney U Test and Chi-Square test were done using Stata/MP 17.0 to find relationship between variables and observe if there are significant differences between two groups.

### 3.6.2 Definitions and Measures

- **OOPHE:** payments made by the household from its own pocket for health care in the 12 months before the survey, comprising consultation/admission fees, medicines, laboratory tests, transport, and food and other costs related to care. Annual OOPHE was divided by 12 to give monthly OOPHE per household; group values are means across the 35 households in each group.
- **CHE:** a household was classified as having CHE if its monthly OOPHE was > 25% of its own monthly household income. The ratio was computed for each household separately (OOPHE ÷ income), not from group means. The 25% income-based cut-off is one of two thresholds (10% and 25% of household consumption or income) used in WHO/World Bank monitoring of SDG indicator 3.8.2. Only the 25% threshold is reported here.
- **Financial resilience:** operationalised as the extent to which households could pay for health care without distress financing and recover afterwards. Four indicators were used: (i) sources of funds used for health expenditure (regular income, savings, loans from friends/relatives, moneylenders or NGOs, and asset sale; more than one allowed); (ii) whether the household took any loan for health care; (iii) whether the health loan was repaid from regular income ("Yes") or was outstanding or partly repaid ("No") and (iv) the main source of funds expected in a future health emergency (single response).

## 3.7 Organizational Assistance

The three field visits were facilitated by Ad-Din Welfare Foundation and HEED Bangladesh. The partner organizations supported the process by contacting both PPEPP-EU and MFP households. In addition, an Assistant Technical Officer (ATO) was present throughout the data

collection to provide assistance, which helped to facilitate and smooth the overall data collection process. Accommodation was provided in their guesthouses, and the partner organizations also arranged meals during the field visits, ensuring logistical support throughout the data collection period.

### 3.8 Ethical Considerations

- Clear and informed consent was obtained from all study participants, ensuring that they are fully informed about their involvement.
- Privacy and confidentiality of participants will be ensured.
- Pictures and Videos will be taken with clear consent of participants.
- Data will be handled with care to maintain accuracy and integrity.

## 4. Results

### 4.1 Normality Test

The Shapiro–Wilk test showed that key variables were not normally distributed ($p < 0.05$); therefore, non-parametric tests such as the Mann–Whitney U test were used for group comparisons.

### 4.2 Socioeconomic Profile of Respondents

| Indicator | MFP Households | PPEPP-EU Households |
|---|---|---|
| **Average Household Size** | 4.11 persons | 3.71 persons |
| **Monthly Average Income (BDT)** | 12,057 | 11,514 |
| **Monthly Average Expenditure (BDT)** | 11,600 | 10,442 |
| **Average Ill Members per Household** | 2.17 | 1.88 |
| **Households with 1 ill Members** | (n= 11) 31.43% | (n= 12) 34.29% |
| **Households with 2-3 ill Members** | (n= 20) 57.14% | (n= 21) 60.00% |
| **Households with 4+ ill Members** | (n=4) 11.43% | (n= 2) 5.71% |

**Table 1: Socioeconomic Profile of PPEPP-EU and MFP Member Households**

The two groups were broadly comparable in their socioeconomic characteristics, which is important for interpreting the health expenditure findings. MFP households had a slightly larger average household size of 4.11 persons compared to 3.71 persons for PPEPP-EU households. Monthly average household income was BDT 12,057 for MFP households and BDT 11,514 for PPEPP-EU households, reflecting a relatively small difference. Both groups reported similar illness burdens, with MFP households averaging 2.17 ill members per year and PPEPP-EU households averaging 1.88. The majority of households in both groups had 2 to 3 ill members in the last 1 year, at 57.1% for MFP and 60.0% for PPEPP-EU. A higher share of MFP households experienced four or more ill members in a single year at 11.4% compared to 5.7% for PPEPP-EU.

## 4.3 Out-of-Pocket Health Expenditure (OOPHE)

| OOPHE Indicator | MFP (n = 35) | PPEPP-EU (n = 35) |
|---|---|---|
| **Monthly Average OOPHE (BDT)** | 3,458 | 1,765 |

**Table 2: Monthly Average OOPHE of MFP and PPEPP-EU Households**

The monthly average expenditure for MFP households was BDT 3,458 while PPEPP-EU households spent BDT 1,765, which is about 49% less. The Mann-Whitney U test showed a statistically significant difference between the two groups ($z = 2.467$, $p = 0.013$), with higher expenditure reported by the MFP households. Notably, PPEPP-EU households had more vulnerable ill members 60% than MFP households 45.71%, and at the same time, reported a lower OOPHE. This difference is further broken down by illness burden. For households with only one ill member, MFP households spend BDT 2,930 on average monthly in OOPHE compared to BDT 830 for PPEPP-EU. For households with 2–3 ill members, the gap narrows slightly BDT 3,516 vs BDT 2,018. For households with four or more ill members, both groups converge at near-equal OOPHE BDT 4,625 vs BDT 4,725.

| Illness Burden | MFP Monthly Average OOPHE (BDT) | PPEPP-EU Monthly Average OOPHE (BDT) |
|---|---|---|
| **1 ill member (MFP, n= 11) (PPEPP-EU, n= 12)** | 2,930 | 830 |
| **2–3 ill members (MFP, n= 20) (PPEPP-EU, n= 21)** | 3,516 | 2,018 |
| **4+ ill members (MFP, n= 4) (PPEPP-EU, n= 2)** | 4,625 | 4,725 |

**Table 3: OOPHE of MFP and PPEPP-EU Households by Illness Burden**

A particularly compelling piece of self-reported evidence reinforces these figures: 86% of PPEPP-EU members reported that their health expenditure decreased after joining the programme, while 14% reported it remained the same. No member reported an increase. Because these are self-reported data there may be some sort of bias in these and these data are to be interpreted with precaution.

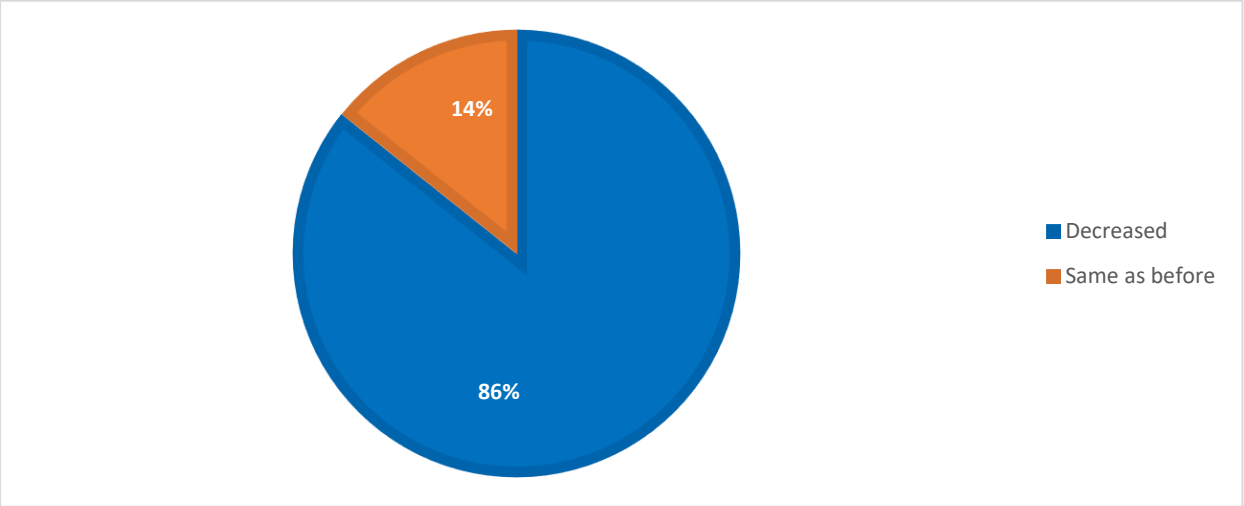


**Figure 1: Reported Change in OOPHE by PPEPP-EU Member**

## 4.4 Composition of OOPHE

Medicines constitute the largest single component of OOPHE in both groups, 60.5% for MFP households and 64.1% for PPEPP-EU households. Despite spending far less in absolute terms, PPEPP-EU households allocate a slightly higher proportion of their OOPHE to medicines,

suggesting that they save proportionally more on consultation fees 11.4% than MFP 16.8% of OOPHE and diagnostic costs.

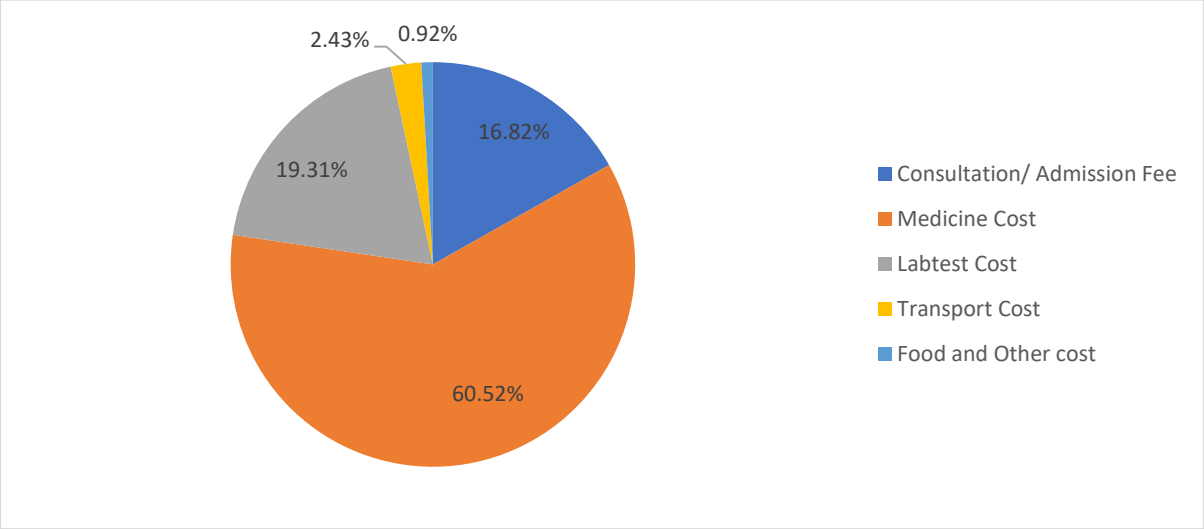


**Figure 2: OOPHE Composition of MFP Households**

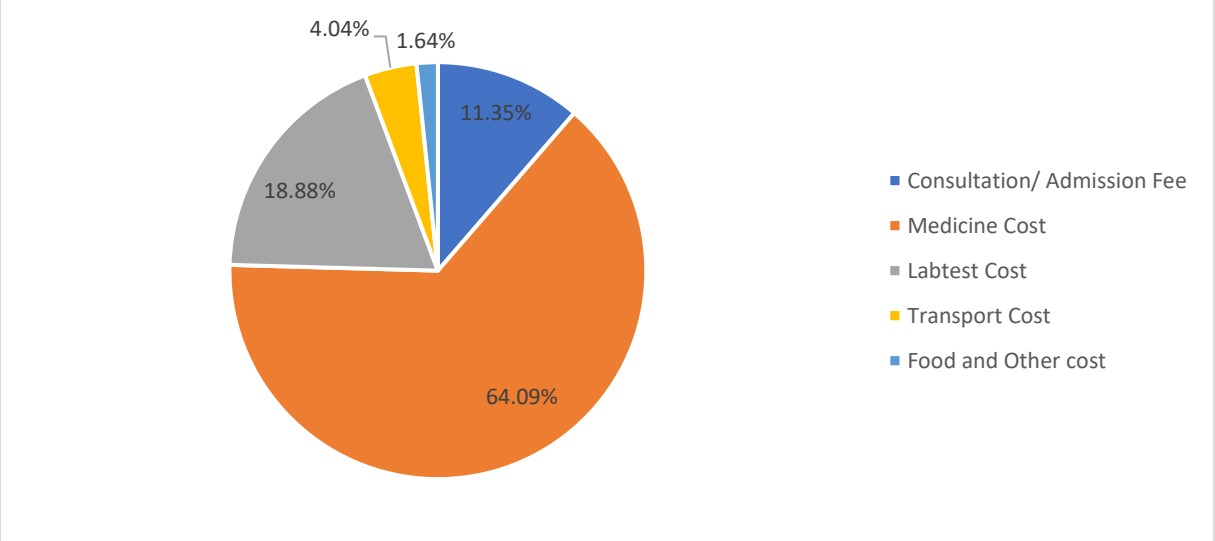


**Figure 3: OOPHE Composition of PPEPP-EU Households**

## 4.5 Catastrophic Health Expenditure (CHE)

| CHE Indicator | MFP | PPEPP-EU |
|---|---|---|
| **CHE Rate at 25% Threshold (MFP, n= 35) (PPEPP-EU, n= 35)** | 37% | 11% |
| **CHE with 1 ill member (MFP, n=11) (PPEPP-EU, n=12)** | 45.5% | 8.3% |
| **CHE with 2–3 ill members (MFP, n= 20) (PPEPP-EU, n= 21)** | 30.0% | 9.5% |
| **CHE with 4+ ill members (MFP, n= 4) (PPEPP-EU, n= 2)** | 50.0% | 50.0% |

**Table 4: Catastrophic Health Expenditure**

The incidence of Catastrophic Health Expenditure (CHE), defined using the 25% of household income threshold as recommended by the World Health Organization, was 11.4% among PPEPP-EU households compared to 37.1% among MFP households. The Chi-Square test indicated a statistically significant association between group membership and CHE incidence ($\chi^2 = 6.29$, $p = 0.012$).

Disaggregation by illness burden shows that among households with one ill member, CHE incidence was 8.3% for PPEPP-EU compared to 45.5% for MFP. For households with 2 to 3 ill members, the rates were 9.5% and 30.0% respectively. For households with four or more ill members, both groups reported a CHE rate of 50%. As some of these subgroups contain very small numbers of households, the findings should be interpreted with caution, as estimates based on small subsamples may be unstable.

## 4.6 Financial Resilience Indicators

### 4.6.1 Funding Sources

The funding-source indicators below are **descriptive findings;** they were not tested for statistical significance.

| Funding Sources | Groups | |
|---|---|---|
| | **MFP %** | **PPEPP-EU %** |
| **Regular Income** | 31.43% | 60% |
| **Savings** | 0% | 2.86% |
| **Loan from Friend/Relative** | 51.43% | 37.14% |
| **Loan from Money Lender** | 2.86% | 0% |
| **NGO Loan** | 37.14% | 37.14% |
| **Asset Sale** | 37.14% | 17.14% |

**Table 5: Funding Sources (n = 35 per group)**

A higher proportion of PPEPP-EU households used regular income to meet health expenditures at 60.0% compared to 31.43% of MFP households. MFP households were more dependent on borrowing from friends or relatives at 51.43% compared to 37.14% for PPEPP-EU, and on asset selling at 37.14% compared to 17.14% for PPEPP-EU. Dependence on NGO loans was identical across both groups at 37.14%, and the use of savings and moneylender loans was minimal in both. As households may draw on multiple funding sources, percentages exceed 100%.

### 4.6.2 Loan Repayment Capacity

Loan repayment was recorded in three categories. **Yes:** the household had repaid its health-related loan (taken in the last 12 months) from regular income, demonstrating financial recovery from the health shock. **No:** the loan was still outstanding or only partly repaid, suggesting that financial strain continued beyond the illness episode. **Did not take a loan:** added so that all households are accounted for. Loan includes borrowing from friends or relatives, moneylenders and NGOs. Results are shown in two ways: for all households (Panel A, with the denominator of 35 households per group), and for households that actually borrowed (Panel B, with the denominator being only those that took a loan).

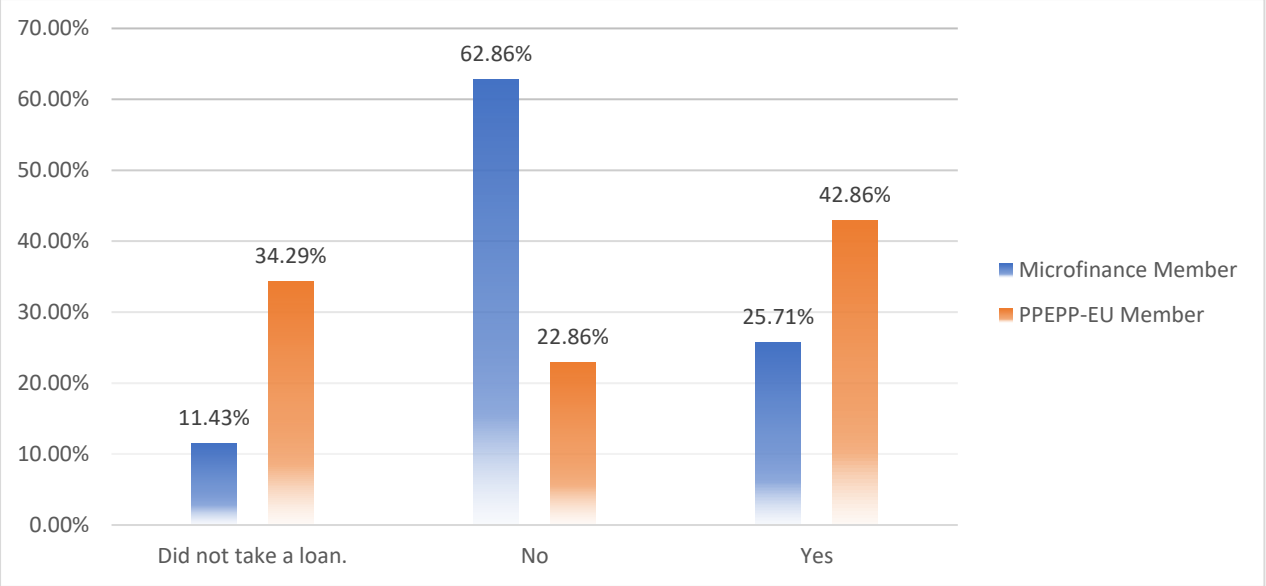


**Figure 4 (Panel A): Repayment of Loan with Regular Income (Among All Households)**

The chi-square test indicated that the distribution across the three categories differed between the groups ($\chi^2 = 12.03$, df = 2, p = 0.002).

| Repayment status | MFP (n = 31) | PPEPP-EU (n = 23) |
|---|---|---|
| **Yes: repaid from regular income** | **9 (29.0%)** | **15 (65.2%)** |
| **No: not repaid** | **22 (71.0%)** | **8 (34.8%)** |

**Table 6 (Panel B): Repayment of health-related loans from regular income among borrowers only**

Among all households, 42.9% of PPEPP-EU households had repaid a health-related loan from regular income compared with 25.7% of MFP households. Conversely, 62.9% of MFP households had a health-related loan that was not repaid, compared with 22.9% of PPEPP-EU households. In addition, 34.3% of PPEPP-EU households did not take a loan for health care at all, compared with 11.4% of MFP households (Figure 4).

Among households that actually borrowed, 65.2% of PPEPP-EU borrowers (15 of 23) had repaid from regular income compared with 29.0% of MFP borrowers (9 of 31). Put differently, 34.8% of PPEPP-EU borrowers and 71.0% of MFP borrowers still had a loan that was not repaid. The borrower-only comparison is descriptive and was not tested.

### 4.6.3 Future Probable Fund

The figure below illustrates the probable sources of financial support that households think they would have to rely on in the future if they faced high healthcare costs. The chart compares the expected coping strategies of the two respondent groups, including options such as asset sale, loans, assistance from the programme, and regular income.

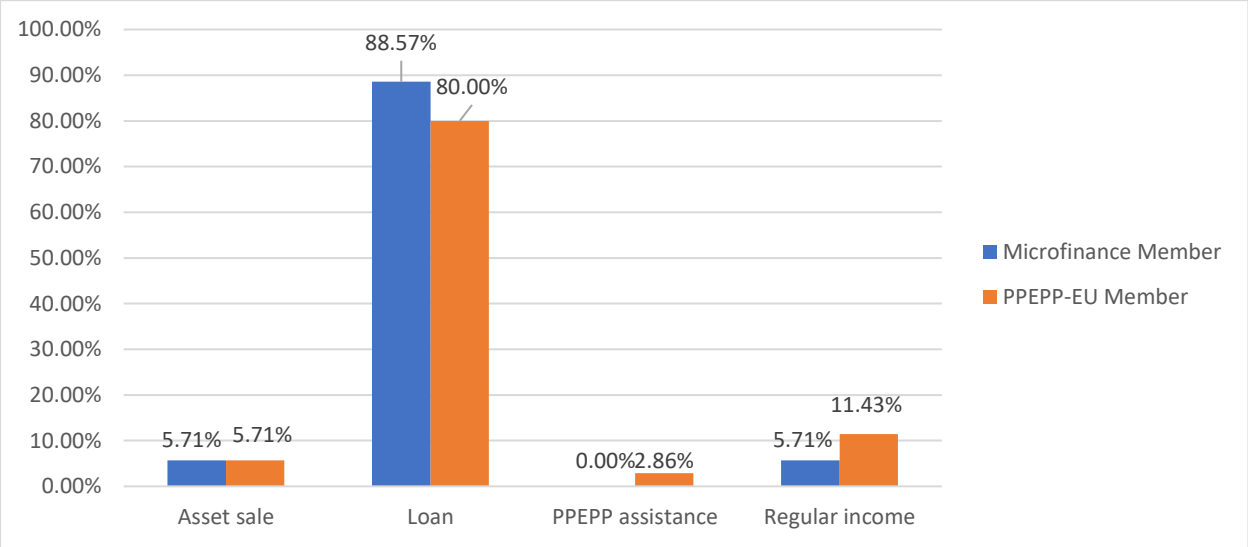


**Figure 5: Future Probable Fund for Health Emergencies**

Looking ahead, both groups overwhelmingly expect to rely on loans as their primary coping strategy for future health emergencies, with 88.6% of MFP households and 80.0% of PPEPP-EU households reporting this preference, reflecting a persistent and shared financial vulnerability to health shocks. PPEPP-EU members were modestly more likely to expect to use regular income for future health costs 11.4% vs 5.7%, consistent with their stronger present-day financial position. These are expectations of both groups, and do not really show the future funds.

## 4.7 Key-Informant Interview Findings

Four key informants were interviewed. Md. Naheed Newaz described the services offered to PPEPP-EU members over the past year: daily screening at Community Nutrition and Health Posts (CNHPs), monthly consultations, medicine distribution, four referrals per month, menstrual hygiene sessions with sanitary-napkin distribution, 24 Infant and Young Child Feeding (IYCF) demonstrations, youth health camps, fistula screening campaigns and a nutrition fair. In his view, these services reduced demand for private, often expensive, facilities. The two Assistant Technical Officers reported that most PPEPP-EU members were not severely

ill, although skin diseases and diarrhoea were common in the coastal area. They said that, in their experience, programme-provided livestock, crops and other livelihood assets gave member households more stable incomes, though some households still sold assets to pay for health care. They also identified transport as a significant hidden cost, since severe cases were referred to Khulna city. In the survey, transport made up a larger share of OOPHE among PPEPP-EU households than among MFP households (4.0% vs 2.4%).

Mr. Subir Paul (Branch Manager, HEED Bangladesh) said that MFP members receive no special health support, health loans or structured health services alongside credit, and that occasional grants for severe cases are neither routine nor guaranteed. He said: “There is more serious sickness among the membership of MFP and healthcare expenses are a constant financial strain for them as some members sell productive assets that were financed through the MFP, such as livestock, to pay for medical costs, which defeats the purpose of the credit being used to generate income”. He added that, although members’ farm and small-business activities were growing, health expenses remained a structural vulnerability that credit alone could not resolve. These accounts are informants’ perceptions, and all four informants are staff of one partner organisation. They are used to contextualise the survey findings, not to verify them.”

# 5. Discussion

This section interprets the findings in light of existing literature. The two groups were compared at a single point in time, so differences are interpreted as associations. Where programme services are offered as possible explanations, these draw mainly on KII accounts and the literature and were not tested in the data.

## 5.1 Socioeconomic Comparability of the Two Groups

Interpreting any difference first requires asking how similar the groups were. Table 1 shows broadly similar observed characteristics: mean monthly income was BDT 12,057 (MFP) and BDT 11,514 (PPEPP-EU), and both groups spent 91–96% of mean income, leaving almost no surplus to absorb unexpected costs. There were, however, very small differences. PPEPP-EU households were a bit smaller (3.71 vs 4.11 members), had fewer ill members on average (1.88 vs 2.17) and included fewer households with four or more ill members (2 vs 4). A smaller household and lower illness burden could by themselves lower OOPHE in the PPEPP-EU group. Income per member and the share of members who were ill were similar, which suggests

household size alone does not explain the OOPHE gap, but this study cannot separate these influences.

Observed similarity also does not establish that the groups were alike before PPEPP-EU enrolment. Current PPEPP-EU incomes may partly result from asset transfers, and unmeasured factors may differ. In particular, the Assistant Technical Officers said most PPEPP-EU members were not severely ill, while the MFP branch manager reported more serious illness among MFP members. Illness severity was not measured and is a plausible source of confounding. The comparisons below should be read with this in mind.

## 5.2 OOPHE Was Lower among PPEPP-EU Households

The main finding is that mean monthly OOPHE in the PPEPP-EU group was almost half that of the MFP group (BDT 1,765 vs 3,458; 49% lower; Mann–Whitney $p = 0.013$). This is consistent with, though does not prove, a contribution from PPEPP-EU's health services. KII informants described free daily screening, monthly consultations and medicine distribution at CNHPs, and said these reduced the need for costly private care. Consistent with this, consultation and admission fees were a smaller share of OOPHE in the PPEPP-EU group (11.4% vs 16.8%), and 30 of 35 PPEPP-EU respondents (85.7%) reported that their health spending had fallen since joining. The self-report is retrospective, was asked only of PPEPP-EU members and may be affected by recall and social-desirability bias, so it supports the finding without confirming it. The pattern is in line with the broader graduation literature that combines livelihood support with health linkages (Banerjee et al., 2015) and with evidence that free or subsidised primary care lowers OOPHE in LMICs (Sarker et al., 2025), although those studies used different designs and this comparison cannot test such mechanisms.

The gap varied with illness burden. Among households with one ill member, OOPHE was about 72% lower in the PPEPP-EU group (BDT 830 vs 2,930), and with two to three ill members about 43% lower. With four or more ill members the means were similar (BDT 4,725 vs 4,625), but this rests on 2 and 4 households and cannot support a conclusion about a "protection ceiling". One possible reading is that free primary care covers routine illness but not hospital admission or specialist referral; this is a hypothesis for future research. An alternative explanation is that illness was less severe among PPEPP-EU households with one ill member, regardless of programme membership.

## 5.3 Medicine Is the Primary Cost Component in Both Groups

Medicines were the largest component of OOPHE in both groups (60.5% MFP, 64.1% PPEPP-EU), a pattern common across rural Bangladesh. Because total OOPHE was lower in the PPEPP-EU group, a similar share implies lower absolute spending on medicines, but medicines still took the largest share of what PPEPP-EU households spent. The share spent on laboratory tests was similar (18.9% vs 19.3%), while the share spent on consultation fees was lower in the PPEPP-EU group. Whatever services PPEPP-EU households received, medicines remained their main out-of-pocket cost. This may reflect distributed medicines not covering all conditions, particularly chronic or non-communicable diseases that need sustained medication, although the study did not measure this. The finding points towards considering medicine subsidy or co-payment mechanisms targeted at extremely poor households.

## 5.4 Catastrophic Health Expenditure: Lower Incidence in the PPEPP-EU Group, Not Evident at Higher Illness Burden

CHE at the 25% income threshold was less frequent in the PPEPP-EU group (4 of 35, 11.4%) than in the MFP group (13 of 35, 37.1%) ($\chi^2 = 6.29$, $p = 0.012$). The literature shows that CHE disproportionately affects rural and low-income populations in Bangladesh (Khan et al., 2017). Thresholds and denominators differ between studies and this sample is small and purposive, so these rates are not directly comparable with national estimates.

By illness burden, CHE was lower in the PPEPP-EU group among households with one ill member (1 of 12 vs 5 of 11) and with two to three ill members (2 of 21 vs 6 of 20), and equal at four or more (1 of 2 vs 2 of 4). These subgroup results are descriptive and rest on very few households. They are suggestive of lower CHE at lower illness burden, but the numbers are too small to conclude that any protective association weakens at higher burden. CHE here is also based on self-reported income in households with irregular earnings, which could shift classification.

## 5.5 Financial Resilience Indicators Were More Favourable among PPEPP-EU Households

On several indicators, PPEPP-EU households appeared better placed to meet health costs without distress financing. These comparisons are descriptive and were not tested; with 35 households per group, some differences may reflect chance variation, so they indicate direction rather than established differences.

### 5.5.1 Funding Sources and Loan Dependence

More PPEPP-EU households paid for health care from regular income (60.0% vs 31.4%). Borrowing from friends or relatives (37.1% vs 51.4%) and asset sales (17.1% vs 37.1%) were also less common in the PPEPP-EU group. NGO-loan use was identical (37.1%), so PPEPP-EU membership was not associated with less borrowing from NGOs. Borrowing and asset sales are widely regarded as harmful coping responses because they deplete productive capital and increase future vulnerability (Sarker et al., 2025). Only one MFP household used a moneylender and none of the PPEPP-EU households did, which is too few to compare. The continued use of NGO loans in both groups' points to the absence of a dedicated health savings or emergency fund, a gap noted in the KIIs.

### 5.5.2 Loan Repayment Capacity

"Loan repayment is one of the clearest indicators of financial resilience in this study, and it can be read in two ways. Among all households, 42.9% of PPEPP-EU households had repaid a health-related loan from regular income compared with 25.7% of MFP households, while 62.9% of MFP households and 22.9% of PPEPP-EU households still had a health-related loan that was outstanding or only partly repaid. In addition, 34.3% of PPEPP-EU households did not take a loan for health care, compared with 11.4% of MFP households. The overall distribution across the three categories differed between the groups ($\chi^2 = 12.03$, $p = 0.002$).

Among households that actually borrowed, 65.2% of PPEPP-EU borrowers (15 of 23) had repaid from regular income compared with 29.0% of MFP borrowers (9 of 31), while 34.8% of PPEPP-EU and 71.0% of MFP borrowers still had an unrepaid loan. This borrower-only comparison is descriptive and was not tested.

The two readings point in the same direction: PPEPP-EU households were both less likely to need a loan and, when they borrowed, more likely to have repaid it from regular income. They therefore appear better able to service health-related debt or to avoid it. This could reflect income from project-provided assets, as the KIIs suggest, but the study did not measure loan size, timing or interest, which strongly affect repayment. Mean income and expenditure were similar (Table 1), so the repayment difference is not accompanied by a difference in observed income. These findings are in line with the view that access to credit alone is inadequate for large health shocks (Dupas and Robinson, 2013), since most MFP borrowers had not repaid their health-related loans from regular income.

### 5.6 Future Vulnerability: Both Groups Expect to Rely on Loans

Both groups remain exposed to future health emergencies. 80.0% of PPEPP-EU and 88.6% of MFP households said loans would be their main source of funds, and few expected to use regular income (11.4% vs 5.7%). These are expectations, not observed behaviour. They suggest that most households in both groups, including those with lower current OOPHE, did not expect to be able to self-finance a future health shock. This is consistent with literature indicating that sustained protection requires continued financial inclusion and health protection mechanisms after programme exit (Hulme and Moore, 2008). In Bangladesh, 73% of current health expenditure is paid out of pocket and total current health expenditure is only 2.17% of GDP (CPD, 2025; World Bank, n.d.), which supports the case for institutionalised health financing instruments such as community-based insurance, revolving health funds or government co-payment schemes.

### 5.7 Health Financing Gaps in Credit-Only Microfinance

The KII with the MFP branch manager indicates that MFP members receive no dedicated health support or health loans, and that some sell productive assets bought through MFP credit to pay for medical costs. The MFP case study describes a similar diversion of an income-generating loan. Earlier studies likewise found that micro-insurance linked to microfinance in Bangladesh increased basic healthcare access but offered inadequate protection against high-cost events among the ultra-poor (Werner, 2009), and that healthcare costs continued to generate indebtedness even among microfinance participants (Ahmed et al., 2011). The MFP group's higher OOPHE and CHE, higher use of loans and lower repayment from regular income are consistent with this view. The evidence is not uniform across indicators, however: NGO borrowing was identical in the two groups and savings were negligible in both. Taken with the literature, the findings suggest that health services or health financing alongside credit deserve consideration in programme design. Whether this would change outcomes is a question this study cannot answer.

## 6. Limitations

This study has several limitations that should be considered when interpreting the results.

**Small sample size:** Only 70 households were surveyed (35 per group), and some subgroups were very small (2 PPEPP-EU and 4 MFP households with four or more ill members), where one household shifts a percentage by 25–50 points. Power was limited: with 35 households per

group, descriptive differences may reflect chance variation and the study could not reliably detect moderate differences. For this reason, funding-source indicators and subgroup comparisons are presented descriptively, without statistical tests. The sample size was not based on a power calculation and was too small for multivariable adjustment.

**Purposive sampling:** Households were selected purposively, with partner organisations facilitating contact, not at random. The sample is not representative of extremely poor households in Dacope or Bangladesh. Partner-facilitated selection could favour households that were easier to reach or more willing to participate, possibly differently in the two groups.

**Cross-sectional design:** Data were collected once, without baseline or follow-up. The study cannot establish temporal order or cause and effect, cannot show change after enrolment, and cannot determine whether differences existed before PPEPP-EU. Current income, expenditure and assets of PPEPP-EU households may partly reflect programme inputs, so their similarity to MFP households does not show baseline comparability. Loan-repayment status was observed at one time point and depends on loan timing, size and terms, which were not compared.

**Comparison-group selection:** The MFP group was selected using broad criteria (same area, extremely poor status, MFP membership), not individual matching or random assignment. The groups may differ in unobserved characteristics that influence both programme participation and health spending (for example depth of poverty, assets, health-seeking behaviour). Why some extremely poor households were enrolled in PPEPP-EU and others were not was not examined.

**Potential confounding:** Group comparisons are unadjusted. Illness severity and type (including chronic conditions), age composition, distance to and type of health facility, and education were not adjusted for. Informants perceived less severe illness among PPEPP-EU members and more serious illness among MFP members, a pattern that could contribute to the observed OOPHE and CHE differences. The count of ill members is a crude measure of burden. MFP households were also slightly larger and had slightly higher income.

**Measurement:** A 12-month recall period creates a risk of recall bias, particularly for outpatient and medicine costs, which could over- or under-state OOPHE and could differ between groups. CHE uses self-reported income as its denominator in households with irregular earnings. Only the 25% threshold was applied, and CHE estimates vary with the threshold and denominator. Accurately accounting for household assets, expenditure, income and liabilities was difficult. The reported fall in OOPHE after enrolment is retrospective, was asked only of PPEPP-EU

members and is open to social-desirability bias. Statistical testing was limited to three comparisons (OOPHE, CHE incidence and the repayment distribution); all other comparisons are descriptive.

**Geographic and time scope.** Data came from three unions of Dacope, a coastal area highly vulnerable to climate change. Results may not apply to haor or riverine char regions where PPEPP-EU also works, where health burden, infrastructure access and coping mechanisms may differ significantly. The three-month internship limited the design and data collection, and analysis continued afterwards.

## 7. Recommendations

The following recommendations are made as possible programme actions to consider, but not as definite actions. They are informed by the study findings but the feasibility, cost effectiveness, sustainability or the acceptability of these interventions has not been evaluated in this study. Recommendations are made from relevant literatures and also using professional judgement. Implementing these recommendations in future projects for extreme poor would help to reduce health related costs and help achieve sustainable poverty reduction.

**1. Integrate Health Financing Components into Poverty Reduction Programmes**

Structured health savings should be an integral part of programmes for extreme poor households, not an add-on. Households could be protected from health shocks at low cost by making a small mandatory contribution to a community managed health fund under the governance of the programme's partner organisation. This strategy is based on existing rotating saving systems in rural Bangladesh which can be formalized with relatively small institutional facilitation.

**2. Develop a Dedicated Health Emergency Loan Product**

Credit programmes for the very poor should include a health-specific loan product, which is structurally distinct from income generating activities. If a household has to allocate productive loans to pay for health care expenses, that undermines the purpose of the original loan, increasing financial vulnerability. A health emergency loan would lower this risk without reducing the household's ceiling on credit for livelihood activities, while offering a grace period and a lower interest rate.

**3. Reduce Medicine Costs Through Subsidised Generic Medicine Access**

Future programmes should consider working with the Directorate of Drug Administration to enable extremely poor families to obtain medicines at reduced prices through the Government Essential Medicines List, as medicines are invariably a major component of the out-of-pocket health expenditure of these families. A revolving stock system allows households to buy items at cost price, and the money collected is used to restock supplies, making the system sustainable with very little ongoing external funding.

**4. Address Transport as a Hidden Cost of Healthcare**

Transport costs are an important but overlooked out-of-pocket expenditure, especially in isolated and climate sensitive regions. Programmes running in these contexts may want to look at the possibility of creating transport support schemes in collaboration with local health facility operators so that households referred to district-level health facilities will not be deterred by cash costs at the time of need.

**5. Expand Telemedicine Linkages for Remote Communities**

Programmes should make use of the growing telemedicine infrastructure under the Directorate General of Health Services to link beneficiary communities with physicians on the government's panel. This is especially true for rural and coastal communities where qualified health service providers are geographically distant, seasonal floods make health care difficult to access, and private consultation fees become a major health expenditure.

**6. Build Health Literacy and Preventive Care Alongside Financial Interventions**

Households may also end up spending a lot of money if they keep seeking care late or relying heavily on informal care, even with financial protection mechanisms in place. Financial interventions should be coupled with recurrent health education, health preventive screening, and with linkage to formal health services in the future programmes because the financial burden of illness would be lower in the long run if people could be identified early and managed properly.

Some of the recommendations outlined above, such as the health savings deposit mechanism, the dedicated health loan product, and generic medicine revolving stock, require regulatory, financial and institutional considerations beyond the scope of this study. The presence of these here does not mean that they are necessarily viable to operate or acceptable to the beneficiaries,

they were just considered as possible because of their potential relevance to the gaps in health financing observed among MFP households and would require specific feasibility studies to be conducted prior to implementation.

## 8. Case Studies

This section holds 2 separate case studies. One PPEPP-EU household and one MFP household's story discussed here.

### Case Study-1: PPEPP-EU

**Location:** Banishanta, Dacope, Khulna

**Khana ID:** 140471715106501004

**Respondent:** Jhumpa Mondol (27 years old)

The three-person family of Jhumpa Mondol in Banishanta, Dacope, Khulna PPEPP-EU member household's experience of health costs and coping. Jhumpa is a 27-year-old woman, who is the only breadwinner for her family and earns the majority of her income from offering her own private tuition to local children. The household's integration into the PPEPP-EU initiative under registered member Jhumpa Mondol marked a vital turning point in their socio-economic stability. Before engaging in the project, the family was highly financially vulnerable due to recurrent health shocks such as frequent fevers and acute illnesses. These large out-of-pocket medical costs resulted in frequent negative coping behaviours like forgoing medical care or selling valuable family property. One such big example is when they had to sell her father-in-law's property to afford the care of Jhumpa's husband. When they did not have enough sales, they resorted to loans from informal money-lenders at higher interest rates, thus putting them into a debt trap and leaving them with mental tensions all the time. The combination of the PPEPP-EU project's intervention and the provision of targeted health services led to a holistic support package, which was effective for livelihood diversification. The household was given productive assets, such as animals and crops and sewing machine, to enhance and stabilize their income. At the same time, they were provided with annual healthcare assistance of around BDT 1000-2000, which included basic care such as diabetes testing and free medicines. In this way, the project not only enabled the delivery of these medical services at their doorstep, but it also reduced the secondary financial cost of healthcare, e.g., medical consultation expenses, transportation expenses, etc. The household has exhibited an

outstanding progression in the transition from non-sustainable financial recovery to better health management in the last year. The incidence of acute disease has significantly decreased with the preventive care provided under the project, though two members of the target family were already ill, which cost them an average of BDT 785 in a month. With the additional income generated from their new assets for livelihood, the family is now able to fully meet these medical needs through their regular income. They no longer have to use informal loans to cover their costs, postpone treatment, or sell distress assets, helping to maintain their household wealth. In addition, the family has been able to sustain food security both during and after the crisis, but most significantly the quality level of their well-being has improved significantly, with much less anxiety about future health crisis.

In the household's account, the asset transfers and locally available medical services reduced the financial shock that illness typically causes. The asset transfers and the provision of locally available medical services reduced the financial shock that is typically caused by sickness. Dedicated financial assistance or safety-net funds during major health shocks will be very beneficial to sustain the gains and protect the household from further catastrophic health events.

## Case Study-2: Microfinance Programme

**Location:** Laudoba, Dacope, Khulna

**Khana ID:** N/A

**Respondent:** Sonia Khatun (25 years old)

The three-member household of Sonia Khatun in Laudoba, Dacope, Khulna shows the utmost vulnerability of the near-poor families who are dealing with health shocks without any health safety nets. A 25-year-old woman, Sonia, is registered in a Microfinance Programme (MFP). Her husband earns money from his small business and earns on an average of BDT 10,000 per month. The household has no savings as it has to spend all its income to meet its basic survival needs and so only has a small asset base, in the form of a few animals. During the past year, a member of the household had a serious heart condition with very severe chest pain, which severely disrupted the household's delicate financial balance. The monthly out-of-pocket health expenditure (OOPHE) was BDT 10,250 on average to manage this chronic illness. The family spent more than their monthly income on health-related expenses, putting them into catastrophic medical expenditure and severely impacting their livelihoods. In response to these staggering expenditures, the family went to several high-risk tactics which put their future at

risk. Often, they were unable to provide the necessary medical care and/or doctor's appointment for the member due to financial limitations. If they had to take it any longer, they borrowed money from relatives. Importantly, the MFP loan that was meant for income-generating activities had to be diverted to pay for immediate medical needs of Sonia. Moreover, the family has always been used to the habit of eating less to pay for health services, a behaviour that was observed prior to entering the MFP and is still observed to the present day. This is a heavy dependence on informal debt, putting the household in a vicious circle of poverty. Their income is all dedicated to daily life and they can't repay the loans they borrowed for medical expenses. This reflects their pre-MFP situation where there were also outstanding medical debts that were not paid. The family has not yet sold off the rest of their livestock holdings, but the escalating debts and diminishing food security have severely reduced their ability to bounce back and have precluded the ability to overcome the continued effects of the disease.

Finally, this case study highlights that conventional microfinance credit without universal health support programmes is easily diverted for emergency health expenditure and not invested in productive activities. The disease remains a major impediment to the economic lives of the family. To break this cycle of health-induced poverty, Sonia underscored the need for support from the institutions to diversify their livelihood, particularly to get them jobs and/or capital to open a small retail outlet.

## 9. Conclusion

This study compared OOPHE and financial-resilience indicators between 35 extremely poor PPEPP-EU households and 35 MFP households in three unions of Dacope Upazila, Khulna. PPEPP-EU membership was associated with lower mean monthly OOPHE (BDT 1,765 vs 3,458; 49% lower) and a lower incidence of CHE (11.4% vs 37.1%). Descriptively, PPEPP-EU households more often paid for health care from regular income (60.0% vs 31.4%) and more often took no loan for health care (34.3% vs 11.4%). Asset sales (17.1% vs 37.1%) and borrowing from friends or relatives (37.1% vs 51.4%) were less common in the PPEPP-EU group, while NGO-loan use was the same (37.1%). More PPEPP-EU households had repaid a health-related loan from regular income (42.9% vs 25.7% of all households), and among borrowers 65.2% of PPEPP-EU and 29.0% of MFP borrowers had done so. OOPHE differences were largest among households with one ill member and absent at four or more ill members, a subgroup of only six households. The KIIs and case studies illustrate how households and programme staff described coping with health costs and are consistent with the survey results,

but do not confirm them. These are observed associations, not programme effects. The study used a cross-sectional design with a small purposive sample from one upazila, a non-random comparison group without baseline data, and no adjustment for confounders such as illness severity, age composition and access to health care. The differences may therefore reflect factors other than PPEPP-EU participation. Both groups remain exposed: 80.0% of PPEPP-EU and 88.6% of MFP households expected to rely on loans in a future health emergency, and neither group has institutionalised health-savings or insurance arrangements. Community health savings, health emergency loans, subsidised generic medicines and telemedicine linkages merit feasibility assessment and evaluation in both types of programmes. Larger, longitudinal, multi-region studies that adjust for confounders are needed to estimate programme effects.

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# Photo Gallery



**Photo 1: Data collection in Kamarkhola Union**



**Photo 2: Data Collection in Laudoba Union**



**Photo 3: Data collection in Banishanta Union**



**Photo 4: With Mr. Subir Paul (Branch Manager- HEED Bangladesh, Kamarkhola Union) and Mr. Bappi Sheikh (ATO- Livelihood)**