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BASELINE REPORT

Impact evaluation of the Cambodia Family Package Programme

SOCIAL PROTECTION IN CAMBODIA

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WFP World Food Programme

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Currency Unit = Khmer Riel (KHR)
US$ 1 = KHR 4,106.44 (data collection period average May-June 2024)

Executive summary

Background

The Royal Government of Cambodia has made social protection a key priority for reducing poverty and vulnerability across the nation. In recent years, programmes such as the COVID-19 Cash Transfer Programme helped families to cope with economic hardships, demonstrating the importance of integrated support systems. In order to formalize its vision, Cambodia approved and enacted the National Social Protection Policy Framework 2016–2025 (NSPPF) in 2017 to construct an inclusive, effective and sustainable system for enhancing human capital. In this regard, the Family Package Programme was announced in late 2023 as an integrated social assistance programme to directly support poor and vulnerable families. Led by the General Secretariat – National Social Protection Council (GS-NSPC) and implemented by the National Social Assistance Fund (NSAF), the Family Package consolidates existing cash transfers for priority groups under one umbrella. These include programmes for pregnant women and young children, school-aged children, persons with disabilities, the elderly and those living with HIV/AIDS. By pooling resources and streamlining delivery, the Family Package aims to strengthen household resilience, productivity and prosperity over the long run.

Against this backdrop, a rigorous impact evaluation was planned to provide evidence on programme impacts and inform future policy. Given the Family Package's nationwide scale-up, the evaluation employed a quasi-experimental research design leveraging Cambodia's Identification of Poor Households (IDPoor) targeting system and database. Treatment households for the evaluation are those that fall just below the poverty line according to their IDPoor score and so receive Family Package benefits, while comparison households are just above the poverty line and will not receive any benefits. This approach allows us to examine changes for treatment households receiving benefits relative to similar comparison households, thereby assessing the programme's effects on various outcomes, including consumption, poverty, resilience, economic activities, financial inclusion, health, education, maternal and child health, women empowerment and other dimensions of well-being. Accordingly, the baseline data were collected between May and June 2024 from a total of 2,404 households, in order to provide a snapshot of conditions before the programme intervention and establish the starting conditions for households. The baseline survey and the evaluation design allow the measurement of programme impacts at a later date. The sub-sections below summarize the key findings from the baseline analysis.

Key findings

Sample characteristics: The average age of household heads is 50 years, with 38 per cent being female. Approximately 83 per cent of heads are married or cohabitating. Notably, 76 per cent of household heads have ever attended school, with a literacy rate of 64 per cent. The study found that most household characteristics were balanced between treatment and comparison groups. Treatment household heads, however, had slightly lower literacy rates (63 per cent vs. 65 per cent), ever school attendance rates (75 per cent vs. 77 per cent) and wage or salary employment (55 per cent vs. 57 per cent). The overall household size (4.2 members), with females constituting 54 per cent, is similar to the national average of 4.3. Looking at the age composition of household members, those aged 10–18 years are the dominant group, accounting for approximately 19 per cent, followed by individuals aged 60 years and older.

Consumption, poverty and resilience: The study found that the average per capita consumption per day was KHR 11,100, with no significant difference between treatment and comparison groups. Health expenditure was, however, higher among comparison households. The overall poverty headcount rate was 58 per cent, slightly higher among treatment (63.7 per cent) than in comparison (52.8 per cent) households, although the difference is not statistically significant. This is consistent with the nature of the study population, which was sampled around the poverty line. Resilience scores were balanced across both groups, with adaptive capacity being the most significant contributor to resilience. Households overall experience higher rates of poverty and lower consumption compared with national figures from 2019 (18 per cent poverty rate and KHR 21,053 per capita) from the Cambodia Socio-Economic Survey (CSES).

Economic activities: Households reported an average of two sources of income, with transfers or remittances (54 per cent), wage or salary employment (50 per cent), and agriculture (43 per cent) being the most common income sources in the past 12 months. The findings are consistent with national patterns of diversified income sources (CSES 2021/22), but they highlight a higher dependence on transfers due possibly to the sample's vulnerability. There was balance across all indicators, although comparison households were slightly more likely to earn from private sector employment (52 per cent vs. 48 per cent) and transfers (56 per cent vs. 53 per cent). Non-farm enterprises were prevalent in 24 per cent of households, with 67 per cent operated by women. The significant role of women in non-farm enterprises is notable and consistent with national trends in female employment in small and medium size enterprises. Households also reported owning key productive assets such as mobile phones (95 per cent) and motorbikes (76 per cent). Average farmland ownership is 0.75 hectare, however, which is considerably lower than the national average landholding size (2 hectares).

Food security and nutrition: The findings also highlight critical nutritional issues and food insecurity. Adults have an average Dietary Diversity Score of 4.06, indicating limited variety in their diets, with only 35 per cent of women meeting minimum dietary diversity requirements. Key food groups such as nuts and seeds, pulses and dairy are rarely consumed. Among children, exclusive breastfeeding under the age of 6 months is low at 47 per cent, and only 28 per cent of children aged 6–23 months receive a minimum acceptable diet. Food insecurity affects 60 per cent of households, with just 30.9 per cent accessing nutritious foods. Negative coping strategies are employed by 70.7 per cent of households to meet essential needs, including food, shelter, health and education, and 15.7 per cent are at risk of falling into poverty due to extreme measures.

Shocks and coping strategies: Households experienced an average of 1.38 shocks over the past year, with 80 per cent facing at least one shock. The most common types of shocks were high food prices (38 per cent), drought/erratic rainfall (37 per cent) and crop/livestock pests or diseases (13 per cent). The study also finds that treatment and comparison households both used positive coping strategies, such as reducing unnecessary expenses, which overall were used by 56 per cent of households to cope with various shocks. A total of 73 per cent of households employed negative coping strategies (such as changing consumption habits and reducing spending on health or education), however, which can weaken households' resilience and negatively affect the long-term growth, health and education of children. The most frequent coping mechanisms used by households included cutting unnecessary expenses (39 per cent), altering consumption habits (31 per cent) and household members taking additional small jobs (18 per cent).

Financial inclusion: The study also found significant financial vulnerabilities among households, with only 7 per cent reporting monetary savings currently, mainly stored at home, and limited banking involvement (8 per cent). In contrast, about 26 per cent of households have taken out loans in the past year, with an average debt burden of KHR 1.95 million (USD 474). Additionally, 36 per cent of households received some form of government assistance, while 18 per cent received remittances in the past 12 months. Informal financial transfers are more sizeable, averaging KHR 2.4 million per year per household from all informal sources, than the average amount of all transfers obtained from all formal sources (KHR 495,433). Furthermore, despite high mobile phone penetration (88 per cent) and ample opportunities for mobile-based financial services, financial inclusion remains limited, with only 17 per cent of households having an account at a bank or a mobile money service provider.

Education and health: Enrolment rates for school-aged children were high, over 90 per cent for children aged 6–14 years. Enrolment was much lower among students aged 15–17 years at 55 per cent. Related to the health of members, it was found that around 47 per cent of households reported illness or injury of members in the past month, with non-communicable diseases (NCDs) being the most common. Illness prevalence was much higher than the national average. Health-seeking behaviour was skewed towards private service providers (85 per cent), and 47 per cent had to resort to coping strategies to pay for health care, including switching to cheaper food or reducing spending on other essential goods or services.

Maternal and child health: The study found that nearly all women had at least one antenatal care (ANC) visit, with 81 per cent receiving four or more visits. Nearly all children were delivered at the health facility (96 per cent), and births were assisted by a skilled health provider (95 per cent). Postnatal care (PNC) coverage for women was also high (94 per cent). Infant PNC was lower at 78 per cent, but this is in line with the national average. Immunization rates in the sample were slightly higher than the national average, and they were significantly higher among treatment group children compared with the comparison group. The study also found that while main (female) respondents demonstrated higher knowledge related to first food for newborns (97 per cent) and immediate breastfeeding after delivery (90 per cent), limited knowledge was observed regarding the recommended duration of breastfeeding and at least three recommended treatments for diarrhoea.

Disability, participation and health among the elderly and people with disabilities: Approximately 71 per cent of elderly individuals reported at least one instance of 'some difficulty' in daily functioning, with 21 per cent experiencing severe limitations based on the Washington Group Short Set questions on Functioning (WG-SS). On a positive note, the study found high levels of participation in community activities by the elderly (71 per cent) and interaction with others (78 per cent) with no difficulties. These participation rates were substantially lower among people with disabilities. Health-seeking behaviour was high, with 85 per cent of the elderly seeking care for illnesses, yet a lower rate was observed for people with disabilities (79 per cent). The findings highlight a gap in terms of access to mobility-assistive devices and health care for the elderly.

Women's decision-making: About 92 per cent of women reported participating in decisions regarding their own earnings, with a slight imbalance favouring the comparison group (94 per cent vs. 90 per cent). Participation in joint decision-making was high, over 90 per cent for most decisions, but slightly lower (89 per cent) for major household purchases. A decision-making index also shows women in the comparison group participating slightly more in decision-making items (93.3 per cent vs. 91.5 per cent).

Government perceptions: Respondents' perception of national and local governments' trustworthiness was high, with national government trustworthiness at 8.52 and local government at 8.09 on a 10-point scale. Perceived improvements were similarly high, with scores of 8.5 for national government and 8.27 for local government.

Programme implementation: Despite a national enrolment rate of over 90 per cent, the baseline study found that only about 41 per cent of the study sample had enrolled in the Family Package by October 2024. The average transfer value represents 4.6 per cent of household baseline consumption. This calculation does not, however, include additional top-ups for scholarships or for pregnant women and infants, which could potentially raise the average transfer value.

Conclusions

Overall, the baseline findings provide critical insights into household conditions prior to programme implementation, covering key areas such as consumption, economic activities, health, education and women's decision-making. Household characteristics indicate a high level of vulnerability, with the majority of participants falling below the poverty line, exhibiting low levels of consumption, high food insecurity and having limited dietary diversity. Economic activities revealed that households rely heavily on transfers, with low levels of non-farm enterprises, highlighting the need for diversified income sources. Similarly, financial inclusion remains low, with high reliance on informal sources for saving and borrowing, reflecting a need for improved financial access and savings mechanisms. There was also room for improvement in school enrolment among adolescents and increasing access to affordable public health services. Women's participation in decision-making was generally high, but with an imbalance between the treatment and comparison groups.

Overall, the baseline study conducted over 360 balance tests comparing the treatment and comparison groups. About 9 per cent of these tests were significant (7 per cent, if not counting indicators related to IDPoor status), in particular in the areas of vaccination coverage, health care-seeking behaviour, disabilities and women's decision-making. This suggests that for the majority of the domains in the evaluation, the study design was effective in creating a similar treatment and comparison group, paving the way for a rigorous impact assessment in the future.

Based on the findings of the baseline study, the following recommendations were formulated.

Programmatic recommendations:

- Increase efforts to enrol all eligible households in a timely way in the Family Package, while addressing barriers to enrolment.
- Ensure adequacy of the transfer amount in relation to household needs and inflation.
- Develop shock-responsive mechanisms within the Family Package to help households cope with various shocks.
- Start planning for a follow-up round of data collection.

Complementary actions:

- Invest in nutrition services to improve infant and young child feeding practices and knowledge.
- Invest in social and behaviour change activities to promote healthy diets.
- Promote income diversification through vocational training and non-farm business development.
- Improve access to formal financial services, including mobile money services.
- Invest in public health facilities to encourage the use of public health care services and engage in strategic partnerships with private providers to reduce out-of-pocket health expenditure.
- Provide support to vulnerable groups, particularly the elderly and persons with disabilities, in order to ensure their full participation in society.

1. Introduction

Despite remarkable economic progress over the last decades, significant development challenges remain in Cambodia. The country almost halved the poverty rate between 2009 and 2019, from 33.8 per cent to 17.8 per cent, and Cambodia reached lower middle-income status by 2015. Economic progress was concentrated in only a few sectors, however, and the COVID-19 pandemic had a major impact on the economy and households' living conditions. Even before the pandemic, many households were in a precarious situation, living just above the poverty line with low access to savings and safety nets.[1]

The Royal Government of Cambodia (RGC) has made significant efforts in the development and implementation of social protection. The National Social Protection Policy Framework 2016–2025 (NSPPF) has the long-term vision to construct "a social protection system based on inclusiveness, effectiveness and financial sustainability as a tool to reduce and prevent poverty, vulnerability and inequality and which will contribute to the development and protection of human resources and stimulate economic growth".[2] During the COVID-19 pandemic, the RGC responded rapidly by establishing the emergency COVID-19 Cash Transfer Programme for Poor and Vulnerable Households, reaching about 716,000 poor and vulnerable households.[3] After the COVID-19 effects faded, the RGC continued to further integrate existing social protection programmes into an overarching framework, as envisioned in the NSPPF in the form of the Family Package.[4]

The Family Package is an integrated social assistance framework designed to support poor and vulnerable families (17.8 per cent of the population live below the poverty line according to the latest Cambodia Poverty Assessment)[5] across the country; protect them from poverty; accelerate human capital accumulation; and promote inclusive growth, leaving no one behind. By integrating existing and planned/future social assistance interventions, thereby ensuring their improved coverage, cost efficiency and sustainability, the Family Package aims to strengthen the ability of families to invest in human capital and achieve long-lasting prosperity.

The specific objectives of the Family Package include: the provision of comprehensive and adequate social assistance covering families and children throughout the life cycle; improvement of the accessibility and coverage of social assistance benefits for populations in need; strengthening of the institutional framework for social assistance delivery; establishment of shared systems/functions to improve the operational efficiency of social assistance benefits; and strengthening of linkages with complementary programmes, social care services and social security. The programme design is led by the General Secretariat – National Social Protection Council (GS-NSPC) and is implemented by the National Social Assistance Fund (NSAF).

The package is intended to integrate several existing and planned social assistance benefits in the country (Cash Transfer for Pregnant Women and Young Children under 2 (CT-PWYC), Cash Transfer for Children from Poor Households in Primary and Secondary Schools, Cash Transfer for Persons with Disabilities and the planned Cash Transfer for Elderly People), and it will introduce a Cash Transfer for Persons Living with HIV/AIDS. The package succeeds the COVID-19 Cash Transfer Programme, which successfully improved the resilience of poor and vulnerable households during the pandemic.

The Family Package is anticipated to be complemented by shock-responsive elements and is intended to facilitate the resilience of vulnerable households to shocks by leveraging the social assistance framework set up for the Family Package. Past examples of adaptive social protection elements include the COVID-19 Cash Transfer Programme, the special cash transfers to families affected by floods in 2022, and supplementary cash transfers to poor and vulnerable households that were affected by the global inflation crisis in 2022–2023. Supporting these households' resilience in adapting to future shocks, including those shocks that may be triggered by climate change, is a key priority.

The rollout of the Family Package is accompanied by a rigorous impact evaluation, providing essential evidence regarding the operations and impacts of the programme. This document presents the baseline findings of the impact evaluation, providing information on the situation of households before receipt of the Family Package benefits. This report also provides an assessment of the balance between the treatment and comparison groups, which will allow the identification of impacts in the future.

2. The Cambodia Family Package Programme

The National Social Assistance Family Package Programme (henceforth 'Family Package') delivers a core set of social assistance benefits across the life cycle for poor and vulnerable households. This integrated programme is targeted at all IDPoor households (see below), who will receive a monthly flat rate cash transfer. Moreover, additional benefits are granted to households that meet the eligibility criteria for the following five categorical groups.

- Cash Transfers for Pregnant Women and Children Under 2
- Scholarships for Primary and Secondary Students[6]
- Cash Transfers for Persons with Disabilities (current disability allowance to be renamed)
- Cash Transfers for the Elderly
- Cash Transfers for People Living with HIV/AIDS

Targeting and identification

The Family Package adopts the Identification of Poor Households (IDPoor) approach to establish the primary method to target beneficiaries for social assistance programmes in Cambodia. The IDPoor programme is managed and implemented by the Ministry of Planning, and it uses a standardized questionnaire administered to the household. Using the answers to the standardized questionnaire, the household is assigned a poverty score, which classifies the household according to one of four categories: IDPoor 1, IDPoor 2, at-risk or non-poor. Only IDPoor 1 and 2 households are eligible for social assistance from the Family Package. Before 2020, the IDPoor programme used to identify poor households in a limited number of provinces each year and updated the data every three years; however, the programme has moved to a continuous and on-demand system in recent years. This means that households that have recently fallen into poverty can submit a request to their local authorities to be assessed for IDPoor status. All households that are identified as IDPoor receive an equity card that is valid for three years. According to the programme implementation manual, for households with equity cards that are set to expire, the IDPoor system will automatically create an interview request for the local authorities to consider.[7]

Eligibility and enrolment conditions

Eligibility for the programme is determined based on the following criteria.

1. Households identified as IDPoor 1 or IDPoor 2 by the IDPoor/on-demand IDPoor system at the time of enrolment in the programme.

All IDPoor 1 and IDPoor 2 households are entitled to the basic benefits. The above households with any of the following eligible demographics will receive additional top-up transfers.

1. A pregnant woman or children aged 0–2 years on or after the date of the programme rollout, with gradual age extension to cover children aged 3–5 years over time, in line with the fiscal space for such expansion.
2. A child enrolled in primary or secondary school up to Grade 12.
3. A person certified as living with a disability based on the disability identification framework (persons with a disability card).
4. A person above the age of 60 years.
5. A person living with HIV/AIDS.

A household identified as IDPoor 1 or IDPoor 2 (or as defined in the future revisions of the IDPoor system as poor or vulnerable) with a pregnant woman or young child, a child enrolled in primary or secondary school, a person living with a disability, an older person aged 60+ years or a person living with HIV/AIDS will receive all five supplementary benefits, in addition to the base rate for all poor households.

Under the condition that the household remains eligible according to the main targeting criteria, the household members qualifying for the cash transfers can easily register/receive these benefits and automatically transition from one programme to the next as they age.

Enrolment in the Family Package is conducted at the community level through the same authorities that administer and issue the IDPoor cards. Enrolment commenced in April 2024, and the enrolment window is continuously open.

Benefits, conditions and payments

Benefits are delivered into a single family account, as in the model of implementation for the COVID-19 Cash Transfer Programme for Poor and Vulnerable Households. Upon enrolment in the Family Package, a Wing account (a financial service provider) is linked to the household's registration for receiving the payments.

Table 2.1 presents the current design of the payment amounts, frequency and conditions in place for each element of the Family Package. The payment values are expected to be inflation indexed and adjusted every two to three years. For pregnant women and young children (up to 24 months of age), the 15 payments are currently linked to conditional antenatal care (ANC), an attended birth at a health facility and postnatal care (PNC) check-ups, as well as an immunization schedule, as specified in the table.

Table 2.1: Family Package benefit values, frequency and conditions[8]

Benefit type	Condition	Payment schedule	Frequency	Amount per transfer (KHR)
Standard benefit	IDPoor status	Monthly benefit	12 p.a. (monthly)	34,000 (US$ 8.28)
Pregnant women and young children	Pregnancy benefits linked with 4 ANC check-ups	At least 12 weeks, 20–24 weeks, 30–32 weeks and 36–38 weeks	4 over 26 weeks	80,000 (US$ 19.48)
	Childbirth – delivery bonus	Upon delivery at a health care centre	one-off	400,000 (US$ 97.41)
	Postnatal benefits linked with 4 PNC check-ups	7 days, 14 days, 1.5 months and 2.5 months after delivery	4 over 2.5 months	80,000 (US$ 19.48)
	Child benefits linked with vaccination and immunization conditions	In line with the immunization schedule (until 18 months of age)	6 over 15.5 months	80,000 (US$ 19.48)
Children in school (Grades 1–12)	Child enrolled in primary school (Grades 1–6)	Monthly benefit paid every quarter	12 p.a.	20,000 (US$ 4.87)
	Child enrolled in lower secondary school (Grades 7–9)	Monthly benefit paid every quarter	12 p.a.	20,000 (US$ 4.87)
	Child enrolled in upper secondary school (Grades 10–12)	Monthly benefit paid every quarter	12 p.a.	30,000 (US$ 7.31)
Elderly (60+ years)	Older persons aged 60 years or older	Monthly benefit	12 p.a. (monthly)	28,000 (US$ 6.82)
Persons with disabilities (across life cycle)	Persons living with a disability (certified)	Monthly benefit	12 p.a (monthly)	28,000 (US$ 6.82)
Persons living with HIV/AIDS	Person living with HIV/AIDS	Monthly benefit	12 p.a (monthly)	28,000 (US$ 6.82)

Source: General Secretariat – National Social Protection Council, *Guidelines for the National Social Assistance Family Package Programme*, GS-NSPC, Phnom Penh, 2023

Family Package and other entitlements

Households receiving the Family Package will continue to be eligible for other entitlements and support provided by the government that are not included in this package. These interventions include, but are not limited to, access to Health Equity Fund benefits, Technical and Vocational Education and Training programmes, access to essential health care services (including maternal and sexual and reproductive health), and other social and child protection services provided by the government. Beneficiaries of the Family Package may also utilize the social security schemes under the National Social Security Fund (NSSF).

Exit rules

The following list provides common exit rules for families receiving benefits through the Family Package.

- **Death of beneficiary:** Upon the death of an elderly person receiving the benefit, a child receiving a scholarship or a person with a disability receiving a disability allowance, the payment for the next cycle will be provided to the household, and the benefits will then be terminated with immediate effect. For mothers receiving the CT-PWYC or scholarships or disability allowance for children, in the case of the death of the mother, a new adult beneficiary will be designated, and the child will remain eligible for the benefit.

- **Voluntary exit:** Households can choose to stop participating, whereupon the voluntary exit must be confirmed by the commune council. No further payments will be made to the household.
- **Fraud/false information:** Any household that supplies fraudulent information (provided there is evidence) may be removed from the programme and payments will stop immediately.
- **Poverty status:** After enrolment, households continue to receive benefits if they meet the eligibility criteria and satisfy the conditions of the programme, if applicable. If a household is no longer considered poor and vulnerable based on the IDPoor eligibility criteria, the household will not receive any further benefits.
- **Age:** The CT-PWYC has age-related eligibility criteria. Once the child reaches the prescribed age threshold, the child automatically graduates from the programme.

Timeline

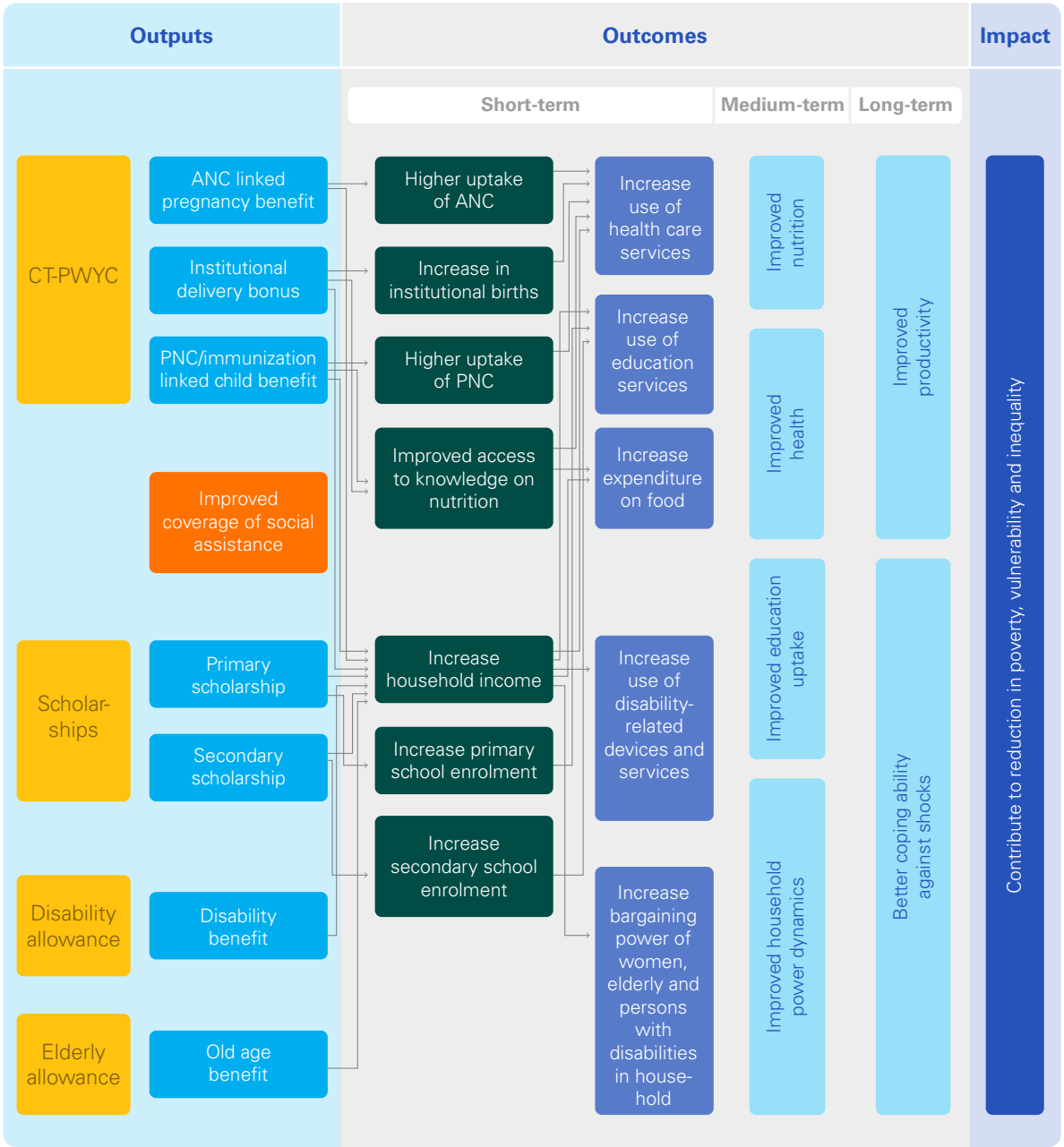
The Family Package was announced by the RGC in December 2023, and it was expected to start operating in April 2024. The Family Package was planned to succeed the COVID-19 Cash Transfer Programme, which ended in March 2024. The enrolment of the programme commenced in April 2024 based on the eligibility criteria stated above, except for the scholarship programme, which is scheduled to be included in January 2025. By June 2024, almost 560,000 households of the expected 700,000 were enrolled and received benefits.[9]

3. Conceptual framework and evaluation questions

3.1 Conceptual framework

Figure 3.1 presents the Family Package high-level Theory of Change, highlighting how each element of the Family Package will support households in becoming more resilient in the face of economic shocks, as well as facilitating increased productivity of households through the development of human capital from increased education uptake, and improved health and nutrition.

Figure 3.1: Theory of Change



Source: General Secretariat – National Social Protection Council, *Guidelines for the National Social Assistance Family Package Programme,* GS-NSPC, Phnom Penh, 2023.

In the short term, the different components of the Family Package are expected to increase the uptake of health services for pregnant women and young children. At the same time, access to knowledge on nutrition is expected to improve. For school-aged children, the scholarship packages are expected to lead to higher enrolment and attendance rates at all levels of the educational system. Benefits provided to vulnerable populations, including the elderly, people with disabilities and people living with HIV/AIDS, can lead to improved access to health and social services, and better bargaining power in the household. The cash benefit is also expected to increase household income and particular food expenditures among households. In the medium term, these improvements are intended to lead to improved nutrition, health and education uptake, as well as improved household power dynamics. Ultimately, the Family Package is set up to improve productivity and make households better able to cope with shocks. By doing so, the expected impact of the programme is to contribute to reducing poverty vulnerability and inequality in Cambodia.

3.2 Motivation and research questions

The main objective of the impact evaluation is to measure the impact of the Family Package on beneficiaries and their households over time (with an initial follow-up planned for 24 months). The study is expected to feed into national policy dialogues about the effectiveness of the Family Package and potential refinements. Key research questions include, among others, the following.

- To what extent has the Family Package increased eligible households' resilience to shocks such as natural disasters and pandemics?
- What is the impact of the Family Package on eligible households' consumption habits?
- What is the impact of the Family Package on eligible household members' health and diets?
- What is the impact of the Family Package on children's educational status (in particular school retention)?
- To what extent has the Family Package improved the quality of life and well-being for elderly and disabled members of eligible households?

4. Methodology

4.1 Impact evaluation design

The main design challenge for the impact evaluation was to find a relevant counterfactual for the households enrolled in the Family Package. The counterfactual would tell us what would have happened to Family Package beneficiaries if they had not been part of the programme. As the rollout of the Family Package happened at the national level, at the same time, it was for example not possible to use a group of eligible households in a province where the Family Package had not yet commenced, or to delay enrolment for some groups.

Given the rollout strategy of the Family Package, the quantitative impact evaluation takes a quasi-experimental approach, using the IDPoor system to construct both a treatment and a comparison group. The IDPoor programme in Cambodia is the primary method used to target beneficiaries for social assistance programmes, and it uses a standardized questionnaire administered to the household. Using the answers to the standardized questionnaire, the household is assigned a poverty score, which classifies the household according to one of four categories: IDPoor 1, IDPoor 2, at-risk or non-poor.

For the purpose of the impact evaluation, the study focuses on households that have recently been assessed by IDPoor (since October 2022) and therefore have not benefited from social assistance support in the past. Households assessed after October 2022 were no longer enrolled in the COVID-19 Cash Transfer Programme. Among these recently assessed IDPoor households (estimated to be about 100,000 throughout the country), those with poverty scores just below the poverty line were sampled as the treatment group, and those just above the poverty line (at-risk households) were selected as the comparison group. These households are likely to be very similar, as they have virtually identical poverty scores, yet they will differ to the extent that the IDPoor households will start receiving benefits through the Family Package, and those above the poverty threshold will not. This evaluation design is known as a *discontinuity design*, as it exploits the discontinuity of eligibility at exactly the cut-off point. These groups will be followed over time to examine the impact of the Family Package Programme.

Power calculations

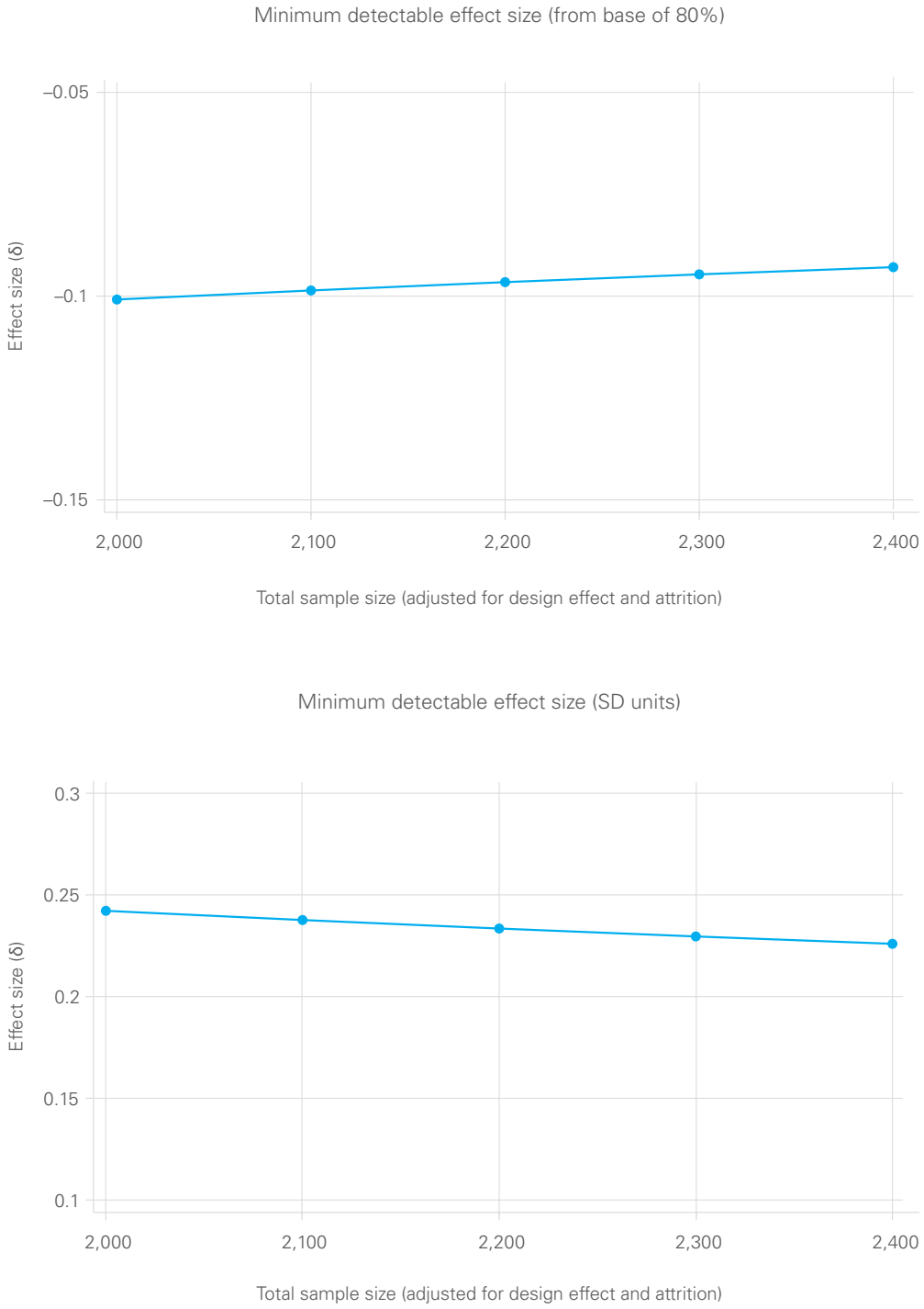
We conducted power calculations to determine the minimum detectable effect (MDE) size that is policy relevant. We use poverty as our main outcome indicator, assuming a baseline rate of 80 per cent. We assume a power of 80 per cent and alpha of 5 per cent. We also consider a clustered design in 120 communities with an intra-cluster correlation (ICC) of 0.03 based on previous research.[10] We applied a design effect for the discontinuity design of 2.75 by assuming that the households are normally distributed around the cut-off.[11] We take into account a 10 per cent attrition rate between baseline and the 24-month follow-up.

With these assumptions, a baseline sample of 2,000 households yields an MDE of a reduction of 10.1 percentage points (pp) in poverty, while a sample of 2,200 yields an MDE of 9.7 pp, and a baseline sample of 2,400 yields an MDE of 9.3 pp.

For continuous outcomes such as household consumption and food security, we estimated MDEs in terms of standardized mean difference (SMD) effect size. We used the same assumptions as above, except for the ICC, which we adapted to 0.05 based on the average ICC for consumption expenditures reported by Seidenfeld and co-workers.[12] These calculations yield MDEs of 0.242, 0.234 and 0.226 for sample sizes of 2,000, 2,200 and 2,400 households, respectively. These are reasonable effect sizes for outcomes such as household consumption and food security.

These results are further illustrated in Figure 4.1, with MDEs for various sample sizes.

Figure 4.1: Minimum detectable effect size at various sample sizes



Sampling design

Given the design of the impact evaluation, the objective of the sampling was to select a group of households very close to the IDPoor threshold, while also ensuring representation from all geographic zones across the country, as well as a decent urban/rural representation. Moreover, the sample needed to be located in a reasonable number of geographic locations to ensure efficient field-work operations.

Based on the power calculations and budget availability, the sample for the impact evaluation was 2,400 households, evenly split between treatment and comparison groups. The sample was selected from the list of IDPoor and at-risk households provided by the Ministry of Planning (MoP). The sample was geographically distributed across all five different zones in Cambodia (Phnom Penh, Tonle Sap, Coast, Plain and Plateau/Mountain). The five zones and their provinces are defined as follows.

Zone	Provinces
Phnom Penh	Phnom Penh
Tonle Sap	Banteay Meanchey, Battambang, Kampong Chhnang, Kampong Thom, Pursat, Siem Reap
Coast	Kampot, Kep, Koh Kong, Preah Sihanouk
Plain	Kampong Cham, Kandal, Prey Veng, Svay Rieng, Takeo, Tboung Khmum
Plateau/Mountain	Kampong Speu, Kratie, Mondulkiri, Oddar Meanchey, Pailin, Preah Vihear, Ratanakiri, Stung Treng

The household sampling frame consisted of the list of IDPoor households interviewed since October 2022 (Poor 1 = 40,258 and Poor 2 = 99,171, combined N = 139,429) and the list of at-risk households interviewed since October 2022 (N = 331,335) provided by the MoP. We limited the sampling frame to IDPoor households that were not yet enrolled in the Family Package by the end of April 2024 (Poor 1 = 15,813 and Poor 2 = 40,030) by matching the IDPoor data to administrative data on household enrolments from the NSAF. We also dropped households from the sampling frame for which the poverty score and IDPoor status did not match (e.g., households with a poverty score above the threshold, but listed as IDPoor (N = 3,109), and households with a poverty score below the threshold, but listed as at-risk (N = 232)).[13]

First step (selection of provinces): In the first stage of the sampling, two provinces with the largest number of IDPoor households for each of the four geographic zones Tonle Sap, Coast, Plain and Plateau/Mountain were selected, while Phnom Penh was added to the selection to cover that zone. This step resulted in the selection of the following nine provinces. The total number of remaining IDPoor households in these provinces was 28,767, while the number of at-risk households was 158,101.

Zone	Provinces
Phnom Penh	Phnom Penh
Tonle Sap	Banteay Meanchey, Siem Reap
Coast	Kampot, Preah Sihanouk
Plain	Kampong Cham, Tboung Khmum
Plateau/Mountain	Kampong Speu, Kratie

Second step (selection of villages): The second step in the sampling was to limit the number of villages in which the evaluation would take place, in order to retain a manageable and efficient field-work schedule. The nine selected provinces contained a total of 6,456 villages.

We first reduced the list of villages by excluding very small villages (less than 10 IDPoor households) and very large villages (more than 100 IDPoor households).[14] Small villages were considered to be inefficient, because the number of interviews that could be conducted would be low, and the likelihood that a small village had households with a score close to the poverty cut-off was also low. Large villages, in contrast, might have many suitable households but might also bias the sample if a large proportion of the sample is taken from one or two large villages. These exclusion criteria reduced the number of villages to 491, which housed 12,136 IDPoor households and 32,367 at-risk households.

Table 4.1: Distribution of villages in the sample frame

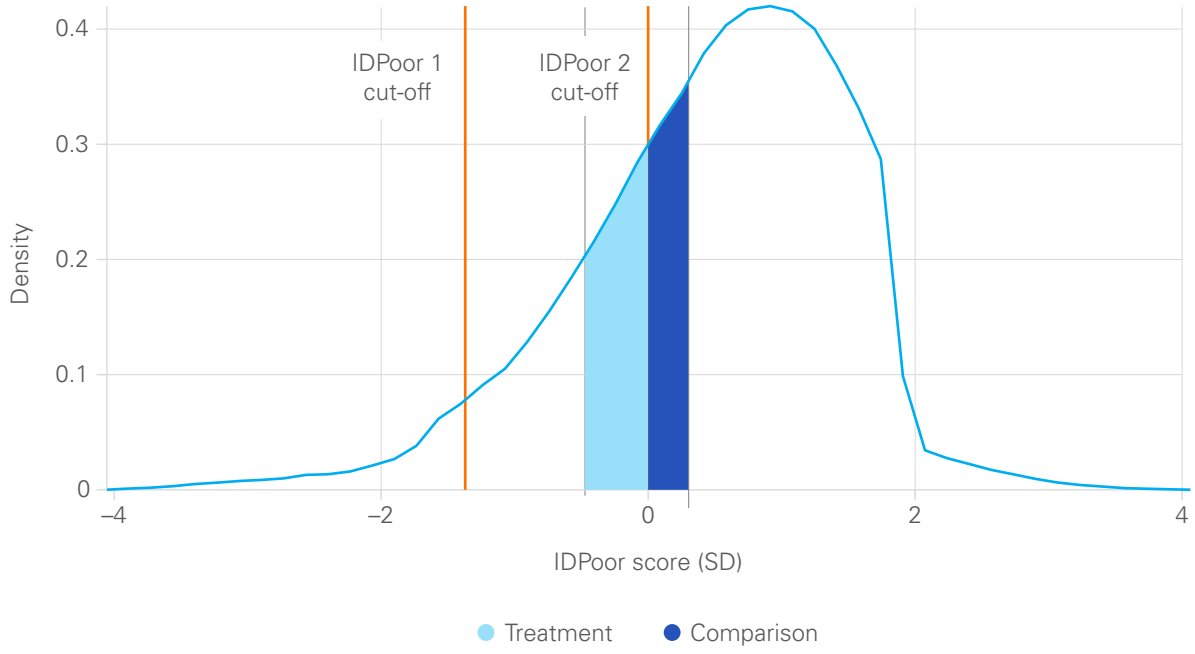
Province	No. of villages	%	No. of villages (excl. small and large)	%	No. of villages selected	%
Banteay Meanchey	667	10.3	122	24.9	30	25.0
Kampong Cham	922	14.3	48	9.8	11	9.2
Kampong Speu	1,314	20.4	28	5.7	6	5.0
Kampot	485	7.5	27	5.5	7	5.8
Kratie	312	4.8	58	11.8	14	11.7
Phnom Penh	860	13.3	20	4.1	6	5.0
Preah Sihanouk	111	1.7	9	1.8	3	2.5
Siem Reap	927	14.4	115	23.4	27	22.5
Tboung Khmum	858	13.3	64	13.0	16	13.3
Total	6,456	100.0	491	100.0	120	100.0

In consultation with the data collection partner, a total of 120 villages was considered optimal for field-work operations. Therefore, from this list of 491 villages, we randomly selected 120 villages, stratified by rural/urban (80/20 per cent split, to retain a similar distribution as in the IDPoor database) locations and proportional to the number of villages in each province (after the above exclusion). These 120 villages were located in 91 different communes and included 2,801 IDPoor households and 7,710 at-risk households (see Table 4.1).

Third step (selection of households): Based on their poverty score, the households in the selected villages were sorted, in ascending order for the comparison group and in descending order for the treatment group, separately for urban and rural villages. The first 960/240 top ranked households in rural/urban villages for each group were selected as the initial sample. In this way, the sampling considered geographic distribution by rural/urban residence by sampling 80 per cent of the sample from rural areas and 20 per cent from urban areas.

This main sample resulted in a distribution of IDPoor and at-risk households close around the poverty threshold, as shown in Figure 4.2.

Figure 4.2: Distribution of IDPoor scores and selection of treatment and comparison groups



Fourth step (selection of replacement households): A replacement sample was also generated as a back-up, in case the households in the main sample could not be located. For replacements, we sampled additional households at the commune level (one administrative unit up from the village) in a similar fashion, by sorting households based on their poverty score and picking those closest to the programme cut-off. The commune level was selected for the sampling of replacement households, because selecting the replacement sample from the same villages would result in households with poverty scores further away from the IDPoor cut-off, whereas at the commune level there would still be a chance to select households with poverty scores closer to the IDPoor cut-off. The first list of replacements consisted of an additional 40 per cent of households. Given that the sampling list came from administrative records whose accuracy we were unsure of, this percentage of replacement

households was considered adequate. During the course of the field work, however, it appeared that for some locations, even the replacement sample would not be sufficient to reach the target sample. So we generated another list of 20 'extra reserve' households for each commune (10 IDPoor and 10 at-risk).

4.2 Data collection

The study instrument consisted of a quantitative, multi-topical survey based on the programme's Theory of Change (see Annex C). The instrument was developed to measure key outcome and impact indicators as well as intermediate outcomes, those that lie along the causal pathway (e.g., food consumption and diet diversity). Wherever possible, validated survey items from existing national survey instruments such as the Cambodia Socio-Economic Survey (CSES), the Cambodia Demographic and Health Survey (CDHS) and other surveys were used in the development of the instrument. The survey instrument was pre-tested in the field on 1 May 2024 before undergoing final revisions.

Data collection was conducted by Angkor Research and Consulting Ltd. through Computer Assisted Personal Interviewing (CAPI). The training was conducted on 15–20 May 2024 with 24 enumerators, 6 field editors, 6 team supervisors and associated field-work personnel. The training consisted of three days of discussion of the study instrument, including role-playing and practising with the CAPI system. On the fourth day (18 May), the teams conducted a pilot test in Takeo Province, with a debrief on the fifth day of training.

After revising the study instrument based on the findings of the pilot test, field teams started data collection on 24 May 2024 and completed the task on 26 June 2024. After the field work was concluded, the distribution of households was realized, as presented in Table 4.2.

Table 4.2: Distribution of households after field work

Province	*N*		Locality (urban/rural, %)		At-risk (%)		IDPoor (%)	
	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.
Banteay Meanchey	789	789	28.4/71.6	28.4/71.6	50.5	50.2	49.4	49.8
Kampong Cham	211	215	0/100	0/100	45.5	46.5	54.5	53.5
Kampong Speu	96	96	0/100	0/100	52.1	52.1	47.9	47.9
Kampot	158	166	0/100	0/100	59.5	58.4	40.5	41.6
Kratie	337	350	21.6/78.4	20.9/79.1	54.6	54.0	45.4	46.0
Phnom Penh	99	87	100/0	100/0	48.5	57.5	51.5	42.5
Preah Sihanouk	37	28	32.4/67.6	14.3/85.7	48.6	50.0	51.4	50.0
Siem Reap	445	445	16.2/83.8	16.2/83.8	49.0	49.2	51.0	50.8
Tboung Khmum	228	228	0/100	0/100	40.8	40.8	59.2	59.2
Total	2,400	2,404	20.0/80.0	19.1/80.9	50.0	50.3	50.0	49.8

The main deviations from the original sample were seen in Preah Sihanouk and Phnom Penh (lower than expected), while the sample was higher than expected in Kampot, Kratie and Kampong Cham. In Preah Sihanouk, the field teams were hindered by additional requests for permission to collect data by the provincial authorities. In Phnom Penh, fewer households than expected were interviewed due to a coding error in the sampling list. Some of these omissions were added in other provinces to make up for the loss of sample.

One of the main challenges during field work was locating the correct household based on the administrative data provided by the MoP. Ultimately, 81.5 per cent of the final sample came from the initial sample list, 13.5 per cent from the first replacement and the remaining 5 per cent from the extra reserve sample. The most common reason for not interviewing a sampled household was absence (64 per cent), followed by the inability to locate the household (33 per cent). A full report on field-work activities and challenges is provided in Annex D.

Ethical considerations

The baseline data collection adhered to the UNICEF Procedure for Ethical Standards in Research, Evaluation and Data Collection and Analysis (2021). Ethical approval for all data collection efforts was granted by the National Ethics Committee for Health Research (NECHR) on 26 April 2024 (No. 091). Key ethical considerations included the following.

- **Consent:** Informed consent was obtained from the main respondent before the beginning of interviews. Enumerators provided participants with appropriate information about the purpose and nature of the study and the approximate length of the questionnaire, so that they could make an informed choice. Respondents were made aware that they were free to terminate the interview at any point and skip any questions they did not wish to respond to. All potential participants were made aware that their participation was voluntary. Only participants who provided verbal consent (documented) were included in the study. The informed consent form is provided as part of the data collection tool in Annex C.

- **Confidentiality:** Participants' names and personal information were not shared with anyone beyond the research team before, during and after the data collection, nor used for any purpose without prior consent from participants. Participants remained anonymous throughout the analysis, publication and dissemination processes of the study. Research data were de-identified and sensitive information omitted before conducting any data analysis and producing research outputs. Names and personally identifiable information (e.g., phone numbers) that could be traced back to specific respondents were excluded from the datasets before analysis.

- **Privacy:** Enumerators were instructed to conduct interviews in a space that guaranteed the security, privacy and comfort of the respondents. If the respondent agreed, however, for a knowledgeable family member or another informant to be present, this was acceptable.

- **Respect:** Data collection was organized as far as possible at an appropriate time and place to minimize risk to respondents. Enumerators attempted to minimize disruption to respondents' activities by providing advance notification and respecting respondents' right to privacy.

- **Data security:** During the active data collection stage, the data were kept strictly private and access was strictly limited to the investigators named in this document, with access controlled strictly by the investigators. Electronic data were kept in secure, long-term digital storage and only accessed by specifically defined members of the research team. Only data needed for transparency and replicability of the study results will be retained on secure servers. Personal identifiers, including names of participants and contact details, will be stored on secure servers, and only the core research team will maintain access to personal identifiable data for the purpose of tracking study participants over time during future study rounds.

- **Compensation:** Costs for the study participants were minimal, except for the opportunity costs of participating in the study. The study team did their best to meet with respondents at a time during the day that was most beneficial for them. Respondents were provided with a small gift worth no more than KHR 4,106 (USD 1) as a sign of gratitude for their participation. The study team ensured that this gift did not place undue pressure on participants to participate, cause community tensions or put any person at risk. The gift was also provided to households who decided to end the survey interview prematurely.

4.3 Estimation methods

The main objectives of the baseline study are to present the baseline values of the key indicators according to the conceptual framework, and to test whether the treatment and comparison groups are similar in their characteristics and outcomes. For each indicator, we present the overall mean for the sample, and the means for the treatment and comparison groups separately. We also estimate the adjusted difference between the treatment and comparison groups using a simple regression model as follows:

$$Y_i = \alpha+\beta_1 T_i+\beta_2 PS_i+\Theta_i+\varepsilon_i \quad (1)$$

In this model Y_i is the outcome of interest for the individual or household i, T_i is a dummy indicator for being in the treatment group (i.e., having a poverty score below 0), PS_i is the poverty score and Θ_i represents strata dummies. We include the poverty score in our comparisons, given the role it plays in determining the treatment status, and also because it may be related to outcomes of interest, since it attempts to measure the consumption level of the household. We also include strata dummies due to the stratified nature of the sample by province and urbanity. In total, there are 12 strata dummies, since some provinces only include urban or rural households, but not both. We cluster the standard errors at the village level, and we assign to replaced households the same cluster ID as the household they replaced, even if they were interviewed in a different village in the same commune. This is done to maintain the same number of clusters as in the sampling plan, and to avoid having many clusters with very few observations.

5. Sample characteristics

Box 1: Key findings on sample characteristics

- Household heads are on average 50 years old, and 38 per cent of households are headed by females. A total of 76 per cent of household heads had attended school, with literacy rates of approximately 64 per cent overall. The findings also show that 56 per cent of household heads had worked for a wage or salary in the last seven days.
- Households have an average of 4.23 persons, females constituting about 54 per cent of members per household. The study also finds that the 10–18 years age group is the largest in both treatment and comparison households, constituting approximately 19 per cent of members in both groups. Around one in three households have children aged under 5 years.
- The study also finds that 15 per cent of households have piped water into their dwellings and 80 per cent have a flush/pour flush toilet (connected to sewage or septic tank) as the main toilet facility used by members. Almost all households use electricity or solar power as the main source of energy for lighting or cooking.
- Except for the share of households with children aged under 2 years, treatment and comparison households appear to be similar in terms of indicators related to the Family Package targeting criteria.

5.2 Household characteristics

This sub-section presents results on household characteristics and composition. Table 5.1 shows the balance between treatment and comparison households in terms of head characteristics. Household heads are on average 50 years old, and about 38 per cent of households have a female head. The study also finds that 83 per cent of heads were married or living together. The mean difference tests show that age, sex and marital status of the heads are balanced between treatment and comparison households. In contrast, heads in comparison households are more likely to have ever attended school and be literate. While 76 per cent of heads (75 per cent in the treatment group and 77 per cent in the comparison group) have ever attended school, 64 per cent in the pooled sample (63 per cent in the treatment group and 64 per cent in the comparison group) can read and write. Table 5.1 also shows that while 56 per cent of heads overall had worked for a wage or salary in the past seven days, heads in the comparison households were more likely to have worked for a wage or salary in the past seven days compared with heads in treatment households.

The findings on head characteristics show that households in the Family Package evaluation are somewhat different from the national average. For example, the CSES 2021/22 report shows that 21.5 per cent of households were headed by women. Moreover, the literacy rate for household heads in our study (63.8 per cent) is lower than the average adult literacy rate of 84.7 per cent for Cambodia in 2021.[15] These findings speak to the higher level of vulnerability among the Family Package evaluation sample compared with the national average.

Table 5.1: Household head characteristics

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Age of head (years)	49.8	49.7	49.9	0.137
Head is female	0.380	0.380	0.379	–0.002
Head is married or living together	0.830	0.825	0.834	–0.013
Head is literate	0.638	0.631	0.645	0.059*
Head ever attended school	0.759	0.745	0.773	0.048*
Head worked for wage or salary in last 7 days	0.558	0.546	0.570	–0.050*
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 5.2 presents the demographic composition of households. The findings show that the average household size is about 4.2 individuals, of whom about 54 per cent are female members. The dependency ratio shows that there is almost one dependent member (aged below 15 or above 64 years) for every active member (aged between 15 and 64), in the treatment and comparison households alike. The distribution of household members by age group also shows that the 10–18 years age group is the largest in both treatment and comparison households, constituting 18.9 per cent of household members overall. This is followed by members aged 60 and above (elderly) (16.5 per cent), adults aged 30–39 years (12.5 per cent) and children aged 5–9 years (11.8 per cent). The findings show that about 36 per cent of households have children under the age of 5 years.

Table 5.2: Household composition

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Household size	4.231	4.335	4.127	0.097
Share of females	0.539	0.544	0.535	0.006
Share of households with children under the age of 5 years	0.356	0.368	0.344	0.038
Share of children aged 0–4 years	0.091	0.094	0.088	0.018*
Share of children aged 5–9 years	0.118	0.119	0.118	–0.011
Share of children aged 10–18 years	0.189	0.198	0.180	0.003
Share of adults aged 19–29 years	0.107	0.107	0.108	0.019
Share of adults aged 30–39 years	0.125	0.124	0.125	–0.022*
Share of adults aged 40–49 years	0.107	0.104	0.110	–0.002
Share of adults aged 50–59 years	0.098	0.105	0.092	–0.003
Share of elderly (age 60 and above)	0.165	0.150	0.179	–0.002
Share of members with some disabilities per household	0.234	0.225	0.244	0.002
Share of members with severe disabilities per household	0.065	0.060	0.070	0.006
N	2,404	1,196	1,208	
Dependency ratio	0.963	0.989	0.937	0.078
N	2,253	1,138	1,115	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance ** 5% significance; *** 1% significance.

The study also finds that 23 per cent of members per household have a disability (having at least one instance of 'some difficulties' from the six domains based on the Washington Group disability criteria). Consideration of members with a severe level of disability (having 'lots of difficulties' or 'cannot do it at all' in any of the six domains based on the Washington Group disability criteria) reduces this share to about 7 per cent, however. Most indicators show no statistically significant differences between the treatment and comparison groups, suggesting that overall balance is achieved. There is, however, a small but marginally significant (at the 10 per cent level) difference in the share of children aged 0–4 years and adults aged 30–39 years. The findings show that the average household size in our sample is close to the national average of 4.3,[16] but the households in our sample have more people with disabilities per household (23 per cent or 0.89 person with some disabilities and 7 per cent or 0.28 person per household with severe disabilities) than the national average (0.22 person per household) and more elderly individuals (0.56 person per household),[17] which is consistent with the targeting criteria of the Family Package Programme.

Figure 5.1 presents a population pyramid for the composition of households based on the age and sex distribution of members in the treatment (IDPoor) and comparison (at-risk) groups. While the share of males and females is largely similar in the treatment and comparison groups, children aged 10–14 years and 5–9 years, followed by children aged under 5, dominate in both arms. The distribution differs from the national population reported in the CSES 2021/22 report, which finds that the share of school-aged children is smaller than in the Family Package sample, while there are more adults between 20 and 40 years old in the national sample.[18]

Figure 5.1: Population pyramids for treatment and comparison groups, compared with the national population

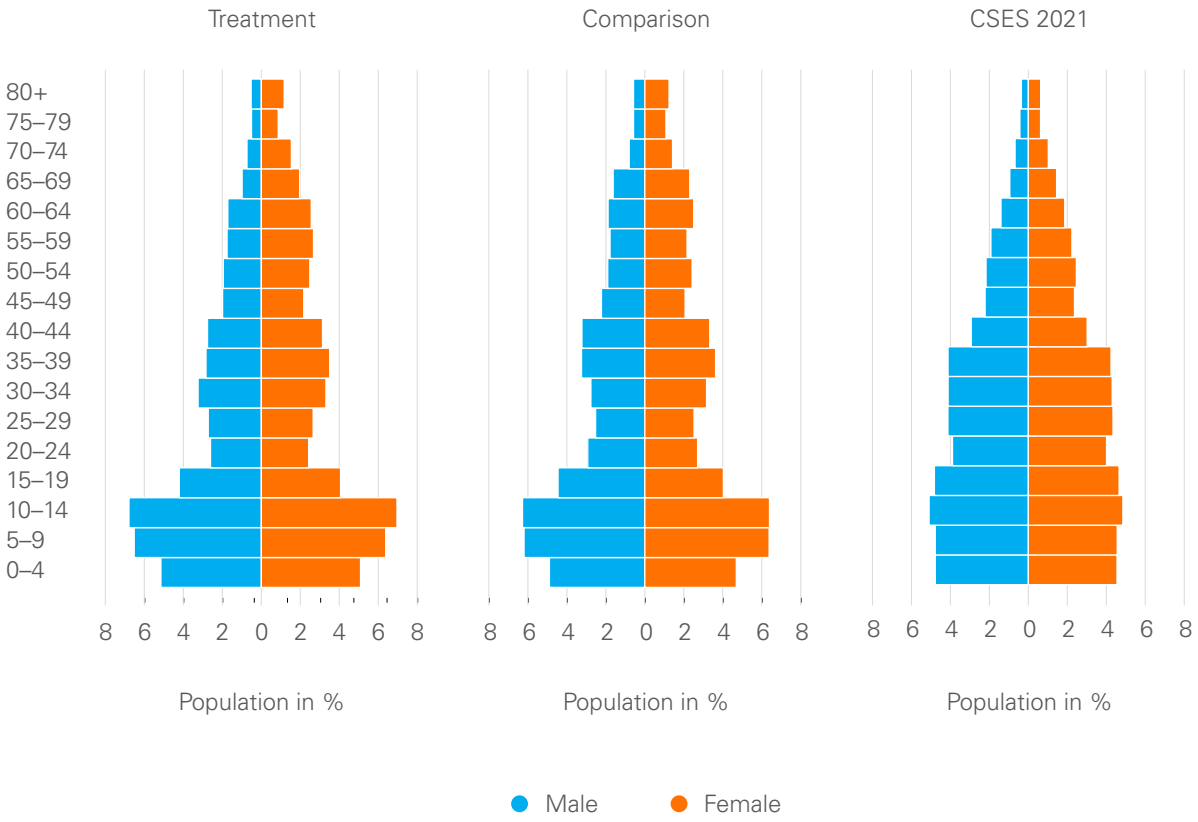


Table 5.3 presents the baseline characteristics of treatment and comparison households in relation to the criteria for additional benefits within the Family Package. The results show that 5.1 per cent of all households have a pregnant woman, with no statistically significant difference between the treatment group (5.7 per cent) and the comparison group (4.6 per cent). For the share of households with children aged under 2 years, however, there is a higher proportion in the treatment group (14.1 per cent) compared with the comparison group (13.3 per cent), and this difference is statistically significant. Related to the share of households with elderly members (aged 60 and above), balance is observed between the treatment (41.5 per cent) and comparison (41.1 per cent) groups. Similarly, the proportion of households with school-aged children (aged 3–17 years) is balanced between the treatment (81.5 per cent) and comparison (76.7 per cent) groups, as is the case for children aged 6–17 years (73.8 per cent in the treatment group vs. 68.4 per cent in the comparison group), with no significant differences. Balance is also achieved regarding the share of households with members holding disability identification cards (2.8 per cent in the treatment group vs. 4.6 per cent in the comparison group).

Table 5.3: Household profiles related to Family Package targeting criteria

Indicator	Overall mean (1)	Treatment mean (2)	Comparison mean (3)	Adjusted difference (4)
Share of households with pregnant women	0.051	0.057	0.046	0.004
Share of households with children aged under 2 years	0.137	0.141	0.133	0.051**
Share of households with elderly members (60+)	0.413	0.415	0.411	0.046
Share of households with school-aged children (3–17)	0.791	0.815	0.767	0.024
Share of households with school-aged children (6–17)	0.711	0.738	0.684	0.013
Share of households with a member holding a disability card	0.037	0.028	0.046	–0.003
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

5.2 Access to services

Table 5.4 presents the characteristics of households in terms of access to basic services, including water, toilet facilities, energy and distance from public services. The results show that about 15 per cent of households have piped water into their dwellings and 80 per cent have a flush/pour flush toilet (connected to sewage or septic tank) as the main toilet facility used by members. These indicators are also balanced between treatment and comparison households. Almost all households use electricity or solar power as the main source of energy for lighting or cooking. In terms of basic amenities, the nearest functional and accessible source of drinking water is located within about 2 minutes, public primary school within 10 minutes, public health facility within 23 minutes and the main market within 32 minutes in walking distance. The test results also show that both treatment and comparison households have equal proximity to these basic amenities.

Compared with the national average reported in the CSES, households in the evaluation sample had lower access to piped water (23.4 per cent in CSES 2021) and also lower access to a toilet facility connected to the sewage or septic tank (87.5 per cent in CSES 2021). Access to electricity from the public grid or solar panels is similar to that reported in the CSES (97.5 per cent).

Table 5.4: Access to basic services

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Main source of drinking water is water piped into dwelling	0.147	0.152	0.142	–0.015
Flush/pour flush toilet (connected to sewage or septic tank) is the main toilet facility	0.801	0.788	0.814	0.015
Electricity or solar power is the main source of energy for lighting or cooking	0.973	0.973	0.973	–0.005
Distance from the closest accessible/ functioning main drinking water source in minutes	2.426	2.406	2.447	–0.015
Distance from the closest accessible/ functioning public primary school in minutes	10.164	9.824	10.500	–0.754
Distance from the closest accessible/ functioning public health facility in minutes	22.799	22.777	22.820	–0.372
Distance from the closest accessible/ functioning main market in minutes	31.983	31.825	32.138	–0.542
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

The study also examined households' access to different social assistance through ownership of membership cards and utilization of services using these cards. We found that about 40 per cent of households (73 per cent in the treatment group and 6 per cent in the comparison group) reported that they owned an IDPoor card (*see Table 5.5*). The study finds, however, that approximately 31 per cent of households overall (57 per cent among the treatment group and 5 per cent of the comparison group) were able to show their IDPoor card to the enumerator.[19] As expected, treatment households are far more likely to own IDPoor cards, regardless of whether households showed their cards or not. By contrast, ownership of any other card, such as an at-risk card, is significantly higher among at-risk households (88 per cent) compared with IDPoor households (27 per cent). About 1 in 10 households also own a National Social Security card. Ownership of a priority access card (PAC) was negligible (1 per cent). The study also finds that about 36 per cent of households who own any type of card have used it to seek any services in the past 12 months. At-risk households are more likely to use the cards to seek services than IDPoor households.

Table 5.5: Access to social protection systems

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Household has an IDPoor card	0.397	0.737	0.061	0.685***
Household has an IDPoor card (card shown)	0.307	0.567	0.050	0.537***
Household has a priority access card (PAC)	0.010	0.010	0.009	–0.007
Household has a National Social Security card	0.098	0.099	0.096	0.009
Household has any other card (e.g., at-risk card)	0.574	0.270	0.876	–0.579***
Household has both at-risk and IDPoor cards	0.060	0.096	0.025	0.099***
N	2,404	1,196	1,208	
Household used any of the above cards for any services in the last 12 months	0.363	0.351	0.374	–0.068*
N	2,200	1,087	1,113	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

6. Consumption, poverty and resilience

Box 2: Key findings on consumption, poverty and resilience

- The average per capita daily consumption in the baseline sample was about KHR 11,100. While the comparison group had a higher level of average consumption, the difference was not significant.
- There was a significant difference between the treatment and comparison groups for health expenditure, which was higher among comparison households.
- The headcount poverty rate was 58 per cent in the baseline sample, and was higher in the treatment group than in the comparison group, but it was not significantly different.
- The average distance of the poor to the poverty line was 17 per cent of the poverty line, or KHR 1,777 per person per day.
- The survey measured household resilience using the Food and Agriculture Organization of the United Nations' (FAO) Resilience Index Measurement and Analysis (RIMA) approach. All indicators related to resilience were well balanced. The pillar of adaptive capacity contributes most to household resilience.

6.1 Household consumption

The baseline survey collected information on household consumption in line with survey modules from the Cambodia Socio-Economic Survey (CSES). Consumption values are aggregated at the household level and converted to daily per capita amounts. Full details about the construction of the consumption aggregates are provided in Annex A. On average, household per capita daily consumption is around KHR 11,100 (*see Table 6.1*). As expected, the comparison group (with higher poverty scores indicating a lower poverty level) has a higher level of consumption than the treatment group, but this difference is not significant. About half of total consumption is devoted to food, at an average spend of KHR 5,400 per capita per day. Food consumption is also higher among comparison households, but not significantly. Another important component in household budgets is housing and utilities at almost KHR 2,000 per person per day, followed by health (around KHR 1,000) and transportation expenditures (KHR 860). For health expenditure, we observe a significant difference between the treatment and comparison groups, suggesting that the comparison group spends more on health. There are no significant differences for other consumption categories.

We also report the average consumption for rural and urban households (*see Table 6.1, columns 5 and 6*). As expected, urban households have a higher level of overall consumption, but not by much (KHR 11,010 vs. KHR 11,447). Urban households spend more in most consumption categories, except for health and miscellaneous goods.

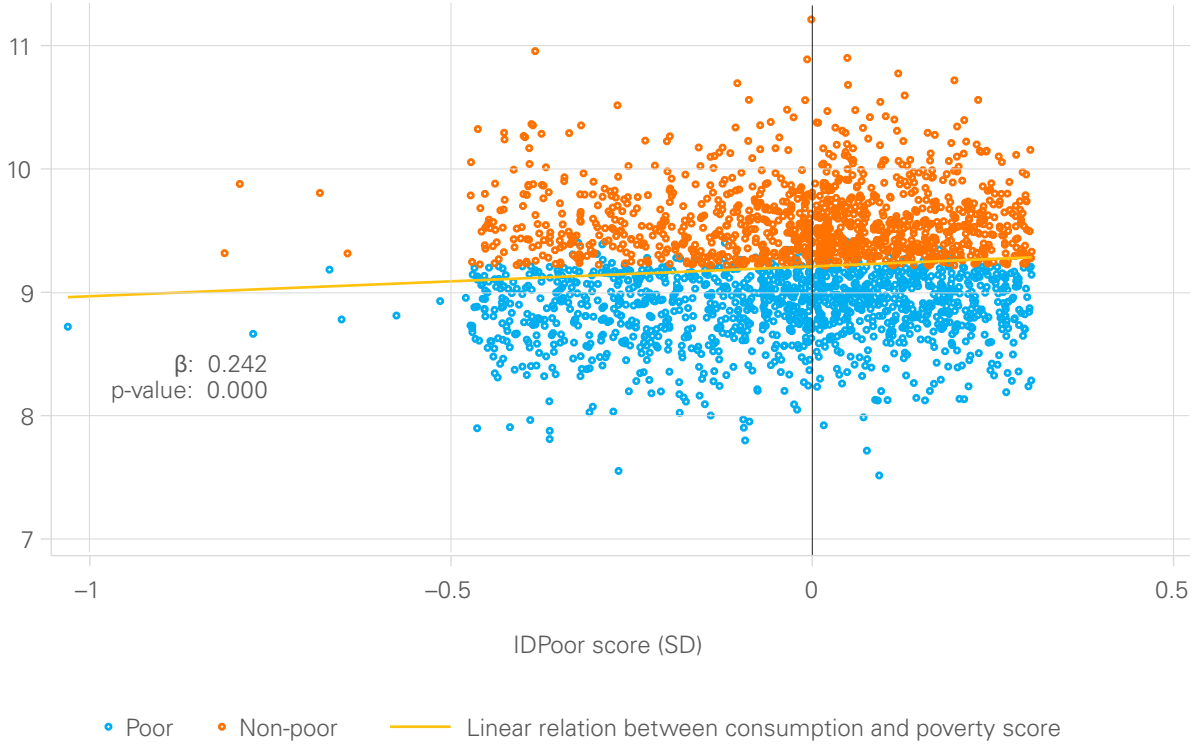
Table 6.1: Consumption indicators in KHR

Consumption category	Overall mean (1)	Treatment mean (2)	Comparison mean (3)	Adjusted difference (4)	Rural mean (5)	Urban mean (6)
Food consumption	5,396	5,168	5,622	–175	5,308	5,768
Alcohol and tobacco	267	250	284	–10	259	300
Household items, furnishing	332	323	341	8	336	316
Housing, water, electricity	1,937	1,880	1,993	19	1,911	2,046
Clothes and footwear	248	244	252	–22	243	267
Health	978	868	1,087	–252**	1,021	798
Education	200	203	198	-2	170	326
Transportation	861	815	907	1	854	892
Communication	263	247	279	-9	253	307
Recreation and culture	20	21	20	9	20	22
Miscellaneous goods and services	591	574	607	–3	635	404
Total household expenditure	11,094	10,592	11,591	–434	11,010	11,447
N	2,404	1,196	1,208		1,942	462

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

We test the accuracy of our consumption estimates by comparing them with the poverty score of households. The poverty score is in essence a predictor of a household's level of consumption, so the two variables should be highly correlated. This relationship is shown in Figure 6.1. Indeed, it shows a positive association between (the log of) consumption and the poverty score, with lower poverty scores having slightly lower consumption rates. At the same time, the graph shows significant variation in terms of consumption around the poverty threshold (depicted using the dashed line), with a similar distribution of points on both sides. The two variables are significantly correlated, with an estimated coefficient of 0.242 and a p-value < 0.001.

Figure 6.1: Relation between consumption (log) and the poverty score



We also test the accuracy of our consumption aggregate by comparing it with figures reported from the latest CSES and those used in the Cambodia Poverty Assessment 2022.[20] The construction of the consumption aggregates between these sources differs somewhat, especially in terms of the imputed value for rent and use value of durable goods, which is not included in the CSES estimates. The consumption estimates for the Family Package impact evaluation should be closer to those from the Poverty Assessment, although the Family Package estimates exclude the use value of durable goods. We inflate the estimates from both reports to the price level of June 2024 and report the results in Table 6.2. The average consumption in the Family Package sample (KHR 11,094) seems to be close to the consumption level of the second quintile based on the CSES 2019 estimates, and below the estimate for the poorest 40 per cent in the Poverty Assessment. Since the Family Package sample is taken from around the poverty threshold, and the poverty rate is around 18 per cent in Cambodia, we would expect the consumption level to be around the upper end of the lowest quintile (between the value of the first and the second quintile, or around the average for the lowest 40 per cent). This seems to be the case if we compare it with the estimates from the 2019 CSES and the Poverty Assessment. Estimates from the 2021 CSES are likely lower due to the impact of the COVID-19 pandemic.

Table 6.2: Total consumption by quintile, CSES 2019 and 2021, and Cambodia Poverty Assessment 2022

	Consumption in KHR (x 1,000)		Per day (nominal)		Per day (real)	
	2019 (1)	2021 (2)	2019 (3)	2021 (4)	2019 (5)	2021 (6)
CSES 2021:						
Lowest	204	191	6,711	6,283	7,594	6,785
Second	304	277	10,000	9,112	11,317	9,840
Middle	403	354	13,257	11,645	15,002	12,575
Fourth	559	463	18,388	15,230	20,809	16,447
Highest	1,166	841	38,355	27,664	43,406	29,875
Poverty Assessment 2022:						
All households			21,053		23,825	
Lowest 40%[†]			11,155		12,624	
Top 60%			27,815		31,478	

Note: Columns 1 and 2 are taken from table 3 in chapter 10 (p. 134) of the 2021 Cambodia Socio-Economic Survey. For the CSES estimates, columns 3 and 4 are calculated by multiplying the values in columns 1 and 2 by 1,000, and dividing by 30.4 to obtain the daily estimate. The Poverty Assessment estimates are taken from figure 3.9 (p. 62).Columns 5 and 6 are calculated by multiplying the values in columns 3 and 4 by the inflation rate between June 2024 and the respective year of data collection. The average Consumer Price Index (CPI) for the CSES 2019 period (July 2019–June 2020) was 179.9, and the CPI for the CSES 2021 period (February 2021–January 2022) was 188.5, while the CPI for June 2024 was 203.6. [†] The lowest 40% from the Poverty Assessment does not coincide with the first two quintiles of the CSES due to differences in calculating the consumption aggregate between the two reports.

We continue this section by presenting a breakdown of the food consumption aggregate into food categories. The largest consumption category is meats and other proteins, with an average of KHR 1,158 per person per day, followed by rice and rice products (KHR 967), and food eaten outside the home (KHR 913) (see Table 6.3). We observe a significant difference in the consumption of vegetables (KHR 64 difference) and spices and condiments (KHR 23 difference).

Table 6.3: Food consumption categories in KHR

Food category	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Rice and rice products	967	956	977	–32
Fish, seafood and other fish products	898	866	929	–55
Meats and other proteins	1,158	1,092	1,223	–34
Fruits	225	202	248	–6
Vegetables	496	458	534	–64***
Spices and condiments	291	282	300	–23*
Non-alcoholic beverages	373	350	396	5
Food eaten outside the home	913	887	939	7
Other food	75	74	77	26
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

6.2 Poverty

Next, we present the baseline values of the poverty indicators. The Cambodia national poverty lines (overall poverty line and food poverty line) were first indexed to the same price level as when the baseline survey took place (June 2024). More details about this indexation are provided in Annex A. We calculated four indicators: the poverty headcount rate, the extreme poverty headcount rate, the poverty gap index and the squared poverty gap index. The headcount poverty rate provides the share of individuals living in households below the national poverty line. Similarly, the extreme poverty headcount represents the share of individuals living in households with total consumption below the food poverty line. The poverty gap index is calculated as the average distance of the poor to the poverty line expressed as a share of the poverty line. The squared poverty gap index is a measure of poverty severity and gives more weight to individuals further away from the poverty line.

The poverty headcount rate in the sample is just over 58 per cent, with a higher rate observed among the treatment group (63.7 per cent) compared with the comparison group (52.8 per cent) (*see Table 6.4*). Despite the large absolute discrepancy, however, this difference is not statistically significant (after adjusting for the poverty score, which explains a lot of the variation in poverty). About 5 per cent of the individuals in the sample live below the food poverty line, with no significant difference between treatment and comparison groups. The poverty gap index was estimated to be around 17 per cent, suggesting that the average person living in poverty in the sample has a consumption gap of 17 per cent of the poverty line (about KHR 1,777 per day). The squared poverty gap index was 7 per cent on average.

Comparing urban and rural households, we observe that the poverty rate is higher among urban households in our sample (62.4 per cent vs. 57.3 per cent in rural areas). This is because the poverty line in urban areas is higher due to a higher cost of living. In contrast, extreme poverty is more common in rural areas (5.4 per cent vs. 3.5 per cent in urban areas). The poverty gap index and squared poverty gap index are quite similar for both types of residence.

Table 6.4: Poverty indicators (individual level)

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference	Rural mean	Urban mean
	(1)	(2)	(3)	(4)	(5)	(6)
Poverty headcount	0.583	0.637	0.528	0.035	0.573	0.624
Extreme poverty headcount	0.050	0.063	0.037	0.021	0.054	0.035
Poverty gap index	0.173	0.197	0.149	0.013	0.173	0.175
Squared poverty gap index	0.070	0.082	0.057	0.007	0.071	0.066
N	2,404	1,196	1,208		1,942	462

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). Estimates are weighted by household size to obtain individual-level results. * 10% significance; ** 5% significance; *** 1% significance.

6.3 Resilience

The final set of indicators in this chapter relate to the resilience of households. The most common definition of resilience is the capacity of a household to absorb shocks and return to a previous level of well-being in the case of adverse events. For this impact evaluation, we applied the Resilience Index Measurement and Analysis (RIMA) methods developed by the FAO and integrated most of the RIMA short questionnaire into the baseline survey. This allowed us to closely follow the guidelines set out by the FAO to implement the RIMA approach.[21]

The main indicator in RIMA is the Resilience Capacity Index (RCI), which is estimated from four resilience pillars: access to basic services, assets, social safety nets and adaptive capacity. The pillars are estimated using factor analysis of their underlying variables. The variables constituting the four pillars are as follows.

- **Access to basic services:** Distance to nearest water source, distance to nearest primary school, distance to nearest health facility, distance to nearest market (all reversed, so that higher values mean closer to the location).
- **Assets:** Total area of agricultural land that the household used (own or leased) during the past wet season (May to November 2023), a wealth index of assets, agricultural inputs and housing characteristics, and the number of all livestock owned (measured in tropical livestock units).

- **Social safety nets:** Total amount of transfers the household received from formal sources in the last 12 months (in logarithms), total amount of transfers the household received from informal sources (remittances) in the last 12 months (in logarithms), number of networks that the members of the household rely on in case of need, and whether the household can rely on friends or family in times of need.
- **Adaptive capacity:** Number of income sources of the household, number of crops grown in the last season, average years of education of household members aged 15 years and older.

The RIMA model also requires two food security outcomes. The outcomes used were the Household Dietary Diversity Score (HDDS) and the log of per capita food expenditure. The combination of these input and outcome variables resulted in a good RIMA model fit, as evidenced by the three indices recommended by the FAO.[22] The pillar values and the RCI are rescaled to range between 0 and 100. Note that the RIMA approach has not established any cut-off values to indicate whether a particular RCI is 'high' or 'low', so the results are just presented to make comparisons between the treatment and comparison groups, and at a later stage between the baseline and follow-up.

The results of the RIMA estimation are presented in Table 6.5. They show that the two groups are well balanced on the RCI, as well as on each of the four pillars that make up the RCI. We also estimated the balance equation for all the raw indicators that make up the four resilience pillars and find no significant differences for any of the 14 indicators, nor for the two food security outcome indicators (results not shown).

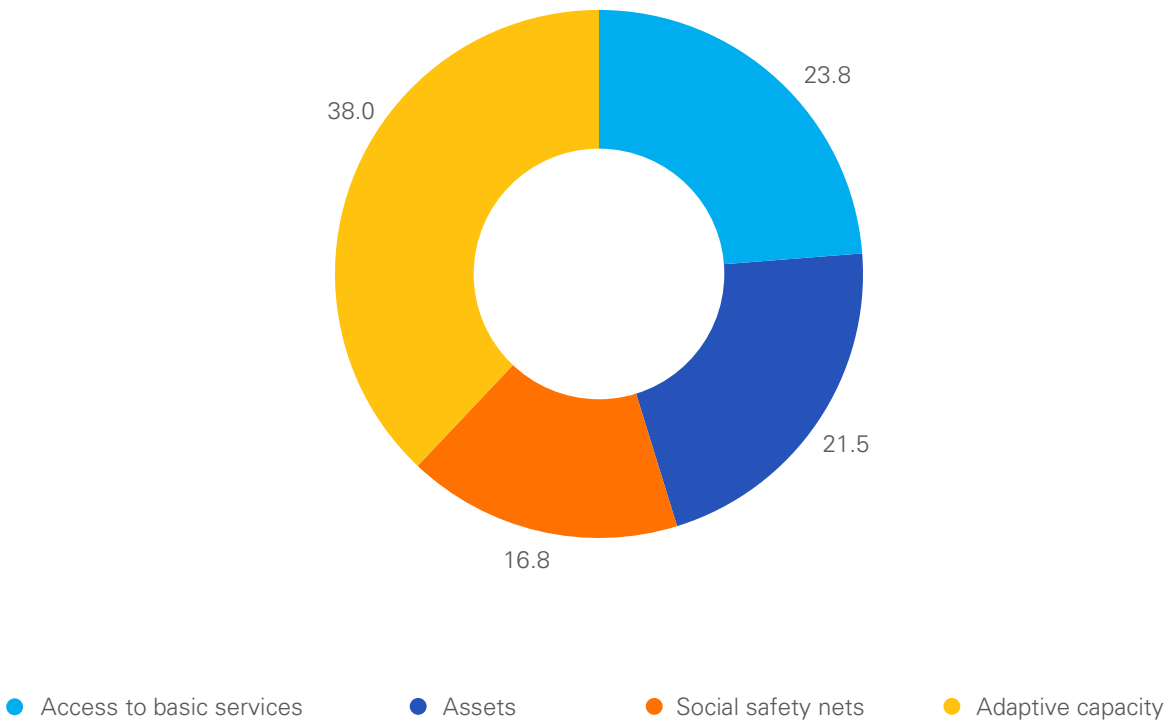
Table 6.5: Resilience outcomes

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Access to basic services	90.12	90.20	90.05	0.19
Assets	13.90	13.48	14.32	0.17
Social safety nets	21.07	21.17	20.97	1.52
Adaptive capacity	29.02	28.41	29.63	0.59
Resilience Capacity Index (RCI)	62.81	62.57	63.04	1.29
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

The RIMA approach also allows us to separate out the four pillars to understand which of them is making the strongest contribution to overall resilience. This breakdown is presented in Figure 6.2. It shows that adaptive capacity has the strongest correlation with the RCI, and thus has the most influence on household resilience. This is followed by access to basic services and assets, which have a similar value. The pillar of social safety nets has the lowest correlation with household resilience.

Figure 6.2: The resilience structure matrix



7. Economic activities

Box 3: Key findings on economic activities

- On average, 44 per cent of household members are engaged in unpaid work and 33 per cent are in paid jobs. The most common income sources are transfers (54.4 per cent), private sector wages/ salaries (50 per cent) and agriculture (43.3 per cent), with an average two income sources per household.
- About 24 per cent of households operated a non-farm enterprise or provided services in the past 12 months, with an average of one enterprise operated per household. Female household members managed 67 per cent of these enterprises, highlighting their significant role in non-farm economic activities.
- Mobile phones (95 per cent) and motorbikes (76 per cent) are the most common productive assets. About 37 per cent of households used improved seeds, while 29 per cent each applied pesticides/ herbicides and fertilizer. Farmland ownership is about 47 per cent, with an average of 0.75 hectare per household.
- Approximately 60 per cent of households owned livestock, with chicken ownership being the most common (55 per cent), followed by cows (17 per cent) and ducks (11 per cent). On average, households owned 0.5 animal per household measured in tropical livestock units (TLUs).
- About 30 per cent of households engaged in agricultural activities during the recent production season. Among farming households, 80 per cent harvested rice, 16 per cent produced cassava, and 12 per cent produced cashew, with very low production of fruits such as mangoes and bananas.

7.1 Employment and income

Table 7.1 presents the baseline balance between treatment and comparison households with respect to members' participation in productive/paid jobs and unpaid work in the past seven days, the number of income sources in the past 12 months and the different sources of income. Data on engagement in work in the past seven days were collected at the individual level, and values were aggregated at the household level. Results show that while approximately 44 per cent of household members were engaged in unpaid work in the last seven days, about one in every three household members were engaged in paid activities. The study also finds that about 22 per cent of household heads were engaged in farm activities as farmers or farm labourers in the past seven days. These indicators are balanced between treatment and comparison households.

Table 7.1: Employment and household income

Indicator	Overall mean (1)	Treatment mean (2)	Comparison mean (3)	Adjusted difference (4)
Employment in the past 7 days:				
Share of household members (above 4 years old) engaged in unpaid work per household	0.436	0.437	0.435	0.004
Share of household members (above 4 years old) engaged in productive activities/paid jobs per household	0.327	0.322	0.331	–0.003
Share of heads engaged in farm activities	0.215	0.216	0.215	–0.015
Income in the past 12 months:				
Number of income sources	1.914	1.944	1.885	0.074
Share of households receiving income from agriculture	0.433	0.431	0.436	–0.012
Share of households receiving income from family business	0.239	0.231	0.247	0.018
Share of households receiving income from government wage/salary	0.030	0.032	0.027	0.009
Share of households receiving income from private sector wage/salary	0.500	0.520	0.479	0.021
Share of households receiving income from transfers	0.544	0.555	0.532	0.022
Share of households receiving income from other sources	0.169	0.176	0.163	0.016
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

The study findings show that households had on average two different sources of income in the past 12 months. The most common income sources are transfers (54.4 per cent), private sector wages/salaries (50 per cent) and agriculture (43.3 per cent). Only 3 per cent of households receive income from a government wage/salary. Mean balance tests also suggest that treatment and comparison households are similar in terms of sources of income in the past 12 months. The CSES 2021/22 report showed that primary income from wages and salaries made up 49.9 per cent of total income in Cambodia. Income from agriculture (self-employed) accounted for 40.7 per cent of the national income, while transfers only accounted for 9.2 per cent of total national income.[23] The report also shows that about 49 per cent of adults (16–64 years) are paid employees, followed by self-employed/own account workers (36 per cent) and unpaid family workers (about 15 per cent).[24] Our findings show, however, that more household members in our sample than the national average tend to engage in unpaid and family work.

7.2 Non-farm enterprises

The study also collected data on the ownership and operation of non-farm enterprises (NFEs) in the past 12 months (see Table 7.2). Approximately 24 per cent of households operated an NFE or provided services in the past 12 months. Among these households, on average one enterprise per household was in operation for about 10 months in the last 12 months. The study also finds that female household members managed 67 per cent of enterprises, highlighting their significant role in NFE operation. Households with an NFE earned more than KHR 700,000 (USD 170) per month from the operation of the enterprise or services provided. All indicators show no statistically significant differences between the treatment and comparison groups, suggesting an overall balance before the programme intervention.

Table 7.2: Participation in non-farm enterprises

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Share of households with a non-agricultural income-generating activity	0.240	0.232	0.247	0.003
N	2,404	1,196	1,208	
Number of NFEs operated by household in the past 12 months	1.05	1.04	1.06	–0.010
Share of NFEs operated by female members	0.671	0.719	0.626	0.041
Total number of months NFEs operated (last 12 months)	10.2	10.0	10.3	–0.839
Total profit per month from all NFEs (KHR)	707,786	701,453	713,695	182,781
N	576	278	298	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

These findings align with the United Nations Development Programme (UNDP) report on understanding the paths to formalization in Cambodia, which indicates that micro, small and medium enterprises (MSMEs) account for 99.8 per cent of firms registered in the 2022 economic census, that they make up 58 per cent of employment, and that 71 per cent were women-owned MSMEs.[25] In this regard, a 24 per cent ownership of NFEs by sample households suggests the potential for growth in this sector among IDPoor and at-risk households. Women's ownership of MSMEs, which is close to our finding that 67 per cent of NFEs are operated by female members, also signals the critical role of NFEs in female employment in the country. The 2021 Living Standards Measurement Survey Plus (LSMS+) also indicates that 32 per cent of households in urban areas and 15 and 17 per cent of men and women in rural areas owned or managed NFEs in the past year.[26]

7.3 Productive assets

The study investigated the ownership of productive assets and the use of agricultural inputs in households. These assets included motorbikes, bicycles, gas cookers, mobile phones and tractors, while inputs comprised improved seeds, pesticides/herbicides and fertilizers. As shown in Table 7.3, a high percentage of households owned mobile phones (95 per cent), followed by motorbikes (76 per cent) and gas cookers (48 per cent). In addition, while about 4 in 10 households also owned bicycles, tractor ownership was substantially lower. Regarding agricultural input usage, approximately 37 per cent of households employed improved seeds, while 29 per cent used pesticides/herbicides and fertilizers. Additionally, around 47 per cent of households owned farmland, with an average size of 0.75 hectare among all households and 1.6 hectares among those who owned farmland. During the past agricultural season (May to November 2023), however, households managed an average of 0.83 hectare of farmland, suggesting that they may also have access to land through alternative means such as leasing. All the indicators are balanced between treatment and comparison households. Balance has also been achieved regarding the standardized productive asset index, which was generated using factor analysis based on the size of the farmland and the number of livestock, motorbikes, bicycles, gas cookers, mobile phones and tractors owned by households. Our findings align with the results reported by the 2021/22 CDHS, which states that 8 in 10 households own a motorcycle/scooter and 54 per cent own a bicycle. Approximately 69 per cent of rural Cambodians also own agricultural land. Mobile ownership has been reported to be at 92 per cent.[27]

Table 7.3: Ownership of productive assets

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Household owns motorcycle	0.761	0.762	0.760	0.025
Household owns bicycle	0.441	0.454	0.427	0.023
Household owns gas cooker	0.480	0.466	0.494	0.021
Household owns mobile phone	0.951	0.953	0.950	–0.009
Household owns tractor	0.014	0.009	0.018	–0.010
Household uses seeds	0.367	0.361	0.373	0.036
Household uses pesticides/herbicides	0.292	0.289	0.295	0.002
Household uses fertilizers	0.293	0.294	0.291	0.021
Share of households who own farmland	0.469	0.465	0.474	0.030
Total area of farmland household owns in hectares (all households)	0.746	0.717	0.776	0.082
N	2,404	1,196	1,208	
Average farmland household owns in hectares (among owned land)	1.591	1.542	1.638	0.086
N	1,128	556	572	

Total area of farmland household used (own or leased) during the past wet season (May to November 2020)	0.825	0.751	0.897	–0.064
Productive asset index (standardized)	–0.031	–0.062	0.000	0.046
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

The Cambodia Agriculture Survey report also shows that while about half of households own less than one hectare of agricultural land, the average farm size in the country is two hectares, with significant variations across zones; however, this is higher than the finding in the current study (1.6 hectares among those owning farmland).[28]

7.4 Livestock

Table 7.4 presents baseline data on livestock ownership among the sampled households. The results show that approximately 60 per cent of households owned some livestock, and that households owned on average 0.5 animal per household measured using a standard method – the tropical livestock unit (TLU).[29] Findings on specific animal ownership show that chicken ownership is the most common (55 per cent), followed by cows (17 per cent) and ducks (11 per cent). Mean difference tests also suggest that there are no statistically significant differences between treatment and comparison groups for the indicators, suggesting that balance has been achieved for livestock ownership variables at baseline. The share of households who own any livestock is about 8 percentage points higher compared with the figure reported in the 2021/22 CDHS (52 per cent).[30]

Table 7.4: Livestock ownership

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Proportion of households who own any livestock	0.595	0.588	0.603	–0.001
Household owns cow	0.168	0.156	0.181	0.026
Household owns pig	0.030	0.028	0.032	–0.006
Household owns chicken	0.549	0.541	0.557	–0.017
Household owns duck	0.109	0.099	0.119	–0.016
Number of all types of animals (mean) currently owned (TLU)	0.503	0.454	0.551	0.027
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

7.5 Agricultural activities

Baseline data were also collected to explore the households' participation in agriculture, the extent of participation denoted by the number of crops harvested during the last cropping season and the specific crops harvested. The results presented in Table 7.5 show that approximately 30 per cent of households were involved in agricultural activities during the recent production period. While households on average grew about 1.2 crops, a majority (88 per cent) of those engaged in farming harvested rice, followed by cassava (16 per cent) and cashew (12 per cent). The production of fruits, such as mangoes and bananas, was minimal, with each involving less than 5 per cent of farming households. There are no statistically significant differences between the treatment and comparison groups for the indicators, suggesting that balance has been achieved for agricultural participation variables before programme intervention. These findings align with a 2021 report by the Asian Development Bank, which indicates that rice is the predominant crop, constituting approximately 70 per cent of the total cultivated area.[31]

Table 7.5: Participation in agricultural activities

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Household harvests any crops	0.295	0.292	0.299	–0.024
N	2,404	1,196	1,208	
Number of crops grown by household in the last season	1.225	1.152	1.296	–0.078
Harvested commodity by household:				
Rice	0.876	0.880	0.873	0.002
Mango	0.024	0.017	0.030	–0.005
Banana	0.010	0.009	0.011	0.003
Cashew	0.120	0.120	0.119	–0.031
Cassava	0.155	0.126	0.183	–0.093
N	710	349	361	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

8. Food security and nutrition

Box 4: Key findings on nutrition and food security

- The average Dietary Diversity Score (DDS) for adults was 4.06, indicating that on average, adults are consuming monotonous diets. As a result, only around 35 per cent of women consumed diets that meet minimum dietary diversity requirements, with nuts and pulses and dairy foods being the less consumed food groups out of the 10 food groups.
- There are substantial gaps in optimal breastfeeding practice, with only 57 per cent of all children aged under 2 years breastfed on the day prior to the survey; only 47 per cent of those aged under 6 months exclusively breastfed; and 41 per cent of children aged 12–23 months continuing to receive breast milk. Mixed milk feeding for children aged between 0 and 5 months is around 19 per cent.
- Only 28 per cent of children between 6 and 23 months have been fed diets that ensure adequate energy and micronutrient intake, as measured by the minimum acceptable diet (MAD) rating in the previous day. This low percentage was mainly driven by the consumption of less diverse diets, as measured by minimum dietary diversity (MDD), which was relatively low (34.6 per cent) compared with minimum meal frequency (MMF) (68 per cent) and breastfeeding (60 per cent).
- A higher percentage of adults are consuming sweet beverages (47.3 per cent) compared with children aged under 2 years (29.4 per cent). Furthermore, 27.2 per cent of adults are consuming unhealthy foods compared with children aged under 2 years (25.3 per cent).
- Over 60 per cent of households are food insecure, with only 8.2 per cent of households never worried about a lack of food, while only 30.9 per cent had access to nutritious foods.
- The majority of households (70.7 per cent) are employing negative coping strategies to meet essential needs, including food, shelter, health and education. A concerning 15.7 per cent of households are at risk of falling into a poverty trap due to the adoption of extremely severe coping mechanisms.
- Intra-household gender disparities in the adoption of negative coping strategies among adult household members were observed. Women were significantly more likely than men to sacrifice their own food consumption (44 vs. 8 per cent) to ensure that other family members had access to food.

8.1 Infant and young child feeding practices

The baseline survey collected information on infants' diets for each child aged under 2 years, following the indicator guide from the Global Diet Quality Project.[32] The results show that several indicators of feeding practices for infants and children under the age of 2 years are suggestive of some differences across regions, gender and in comparison versus treatment groups; however, none of these differences are statistically significant (*see Table 8.1*).

Table 8.1: Infant and young child feeding practices

Indicator	Overall	Region		Child sex		Impact evaluation		
		Rural	Urban	Male	Female	Treat.	Comp.	Adj. diff.
Breastfeeding:								
Currently breastfed (*n* = 337)	0.570	0.575	0.533	0.572	0.567	0.573	0.566	−0.061
EBF2D (*n* = 262)	0.744	0.769	0.615	0.739	0.750	0.771	0.721	0.050
EBF (*n* = 68)[†]	0.471	0.250	0.518	0.448	0.487	0.462	0.476	0.106
MixMF, % (*n* = 68)	0.191	0.179	0.250	0.103	0.256	0.269	0.143	−0.228
CBF, % (*n* = 185)	0.411	0.423	0.318	0.412	0.409	0.449	0.368	0.077
Complementary feeding:								
MAD, % (*n* = 269)	0.286	0.288	0.273	0.270	0.303	0.317	0.250	0.016
MDD, % (*n* = 269)	0.349	0.352	0.333	0.321	0.379	0.393	0.298	0.091
MMF, % (*n* = 269)	0.680	0.674	0.727	0.672	0.689	0.641	0.726	−0.152
EFF (*n* = 269)	0.755	0.771	0.636	0.766	0.742	0.759	0.75	0.052
UFC (*n* = 269)	0.253	0.25	0.273	0.234	0.273	0.276	0.226	0.082
SwB (*n* = 269)	0.294	0.297	0.273	0.307	0.280	0.255	0.339	−0.014

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance. [†] 14 missing values. EBF2D, exclusive breastfeeding for first 2 days after birth; EBF, exclusive breastfeeding; MixMF, mixed milk feeding; CBF, continued breastfeeding; MAD, minimum acceptable diet; MDD, minimum dietary diversity; MMF, minimum meal frequency; EFF, egg and/or flesh food consumption; UFC, unhealthy food consumption; SwB, sweet beverage consumption.

Just over half (57 per cent) of children aged under 2 years in the sample were breastfed during the previous day or night, a figure comparable to the 2021/22 CDHS data of 59 per cent (*see Table 8.1*).[33] The results are suggestive of slightly higher prevalence of breastfeeding in rural (58 per cent) compared with urban areas (53 per cent), possibly due to different livelihood activities for women, depending on their location, as well as higher access to infant formula in urban areas. The prevalence of exclusive breastfeeding in the first two days after birth (EBF2D) was at 74 per cent, notably higher than the 2021/22 CDHS value of 50 per cent. Interestingly, while other breastfeeding indicators tend to suggest better practice in rural areas, the results suggest that the practice of providing pre-lacteal feeds is more common in rural areas.

Only 47 per cent of children aged 0–5 months in the sample were exclusively breastfed (EBF), compared with 50 per cent in the 2021/22 CDHS.[34] An additional 19 per cent of children aged 0–5 months in the sample received mixed milk feeding (MixMF),[35] a figure slightly higher than in the CDHS (13 per cent). Considering the EBF and MixMF results together, the implication is that a substantial proportion of non-EBF children are receiving foods/liquids other than formula or animal milk. Indeed, among the 36 non-EBF children included in the sample, the majority (17) received water in addition to breast milk, although a concerning 13 were receiving formula, and 11 were not breastfed at all (results not shown). Overall, breastfeeding practices for children aged 0–5 months were better in rural than in urban areas (higher EBF and lower MixMF in rural areas), and they were better for male rather than

female children. Among children aged 12–23 months in the sample, 41 per cent continued to receive breast milk (CBF) (*see Table 8.1*), a value comparable with the CDHS (40 per cent). Again, the practice of CBF was more common in rural than in urban areas, although there was no difference by child sex.

Similar to the results related to breastfeeding, there are substantial gaps in optimal complementary feeding practices among the sampled children aged 6–23 months. Overall, only 29 per cent of children received a minimally acceptable diet (MAD)[36] (*see Table 8.1*), a substantially lower figure than the 42 per cent reported in the 2021/22 CDHS. The low proportion of children (35 per cent) consuming a diet with minimum dietary diversity (MDD)[37] during the previous day and night appears to be driving the low results for the MAD results in the sample. Like MAD, the MDD results are notably lower than in the CDHS (49 per cent), and while there was no difference in the proportion of children fed with MDD by location, the results suggest that girls receive more diverse diets than boys. Notably, 76 per cent of children in the sample consumed eggs and/or flesh foods on the day/night prior to the survey (EFF)[38] (*see Table 8.1*). Again, this is a value lower than the CDHS data (83 per cent), with the results suggesting more frequent consumption of these items among children in rural areas.

While the proportion of children receiving the minimum number of meals for their age and breastfeeding status during the previous day and night (minimum meal frequency, MMF)[39] – 68 per cent – was higher than the proportion fed with appropriate diversity (see Table 8.1), it was notably lower than the proportion reported in the 2021/22 CDHS (82 per cent). While the prevalence of MMF was higher in urban than in rural areas, the results did not suggest a difference by child sex.

Concerningly, the consumption of unhealthy foods and drinks was relatively common among children aged 6–23 months. A total of 25 per cent of children consumed an unhealthy food (UFC)[40] and 29 per cent consumed a sweet beverage (SwB)[41] (*see Table 8.1*) – figures that are largely comparable with the CDHS (UFC 21 per cent; SwB 28 per cent). The results are similarly not suggestive of a substantial difference in children's consumption of unhealthy products based on where they live or their sex.

Among the unhealthy foods and drinks, sweet milk is the most consumed item, being consumed by 14.1 per cent of the children, indicating frequent exposure to sugary milk. Sugary snacks such as sweet cakes (11.5 per cent) and candy (10.4 per cent) are also widely consumed, contributing to early preferences for high-sugar foods. Processed foods such as instant noodles (4.5 per cent) and fried chicken (4.1 per cent) are moderately consumed, while sweetened beverages such as sweet tea (6.3 per cent) and soft drinks (3.7 per cent) reflect a reliance on sugary drinks. Overall, there is a concerning reliance on unhealthy, sugary and processed foods in the diets of young children, pointing to the need for better nutritional practices during this critical developmental phase.

8.2 Adult dietary quality

One of the medium-term objectives of the Family Package is to ensure access to nutritious food for individuals across all age groups. This section examines the diet quality of adults, including women of reproductive age, using the minimum dietary diversity for women (MDD-W) measure[42] and the Dietary Diversity Score (DDS) for adults of both genders. Additionally, it will explore the consumption patterns of various food groups among the population.

Adult dietary diversity

The overall diet quality of adults in the baseline sample suggests a high likelihood of inadequate micronutrient intake,[43] with an average DDS of 4.06 (*see Table 8.2*), a figure lower than the 5.2 for Cambodia's general population, possibly due to the baseline sample's focus on households with IDPoor and at-risk households.[44] Minimal differences were observed when disaggregating this score by gender, treatment/comparison groups and rural/urban residence. Notably, the low DDS is primarily driven by the poor consumption of pulses, nuts, seeds and dairy products (*see Table 8.2*).

Table 8.2: Adult dietary diversity and food group consumption patterns

Indicator	Overall	Region		Gender		Impact evaluation		
		Rural	Urban	Male	Female	Treat.	Comp.	Adj. diff.
MDD-W (%)	0.355	0.349	0.379	–	–	0.352	0.357	0.013
N	1,190	947	243			594	596	
Individual DDS (mean)	4.06	4.07	4.04	3.94	4.08	4.04	4.08	0.104
N	2,404	1,942	462	343	2,061	1,196	1,208	
Consumption of food groups used to calculate individual dietary diversity and MDD-W:								
Grains, white roots and tubers, and plantains	0.998	0.999	0.998	1.000	0.998	0.998	0.998	–0.002
Pulses†	0.045	0.043	0.050	0.015	0.050	0.041	0.048	0.013
Nuts and seeds†	0.047	0.048	0.041	0.029	0.050	0.047	0.047	–0.013
Milk and milk products	0.059	0.058	0.063	0.047	0.061	0.058	0.060	0.010
Meat, poultry and fish	0.953	0.954	0.948	0.968	0.951	0.951	0.955	0.013
Eggs	0.345	0.338	0.377	0.327	0.348	0.361	0.330	0.019
Dark green leafy vegetables‡	0.610	0.621	0.565	0.598	0.612	0.603	0.618	0.003
Other vegetables	0.480	0.480	0.476	0.461	0.483	0.474	0.485	0.017
Other vitamin A-rich fruits and vegetables	0.275	0.278	0.262	0.260	0.278	0.263	0.287	–0.001
Other fruits	0.252	0.250	0.258	0.236	0.254	0.248	0.255	0.046
N	2,404	1,942	462	343	2,061	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
† Significant difference at 5% level between males and females; ‡ significant difference at 5% level between rural and urban.

Overall, only 35.5 per cent of women in the baseline sample consumed diets that included at least five food groups in the previous day (minimum dietary diversity for women of reproductive age, MDD-W).[45] This is lower than the 57.4 per cent reported as the national average in CDHS 2021/22, and notably even lower than the national value for women in the lowest wealth quintile (43.5 per cent). While there was a slight difference in dietary diversity between women in rural areas (34.9 per cent)

and those in urban areas (38 per cent), this difference was not statistically significant (*see Table 8.2*). In comparison, the CDHS 2021/22 recorded much higher rates of dietary diversity, with 68 per cent in urban areas and 50 per cent in rural areas.[46]

Evidence from this baseline also shows that the most consumed food groups among adults are staple foods and protein sources such as meat, poultry and fish, with over 95 per cent of respondents in the sample reporting consumption of these food groups. However, only around 5–6 per cent consumed pulses, nuts, seeds and dairy products, with pulses specifically being consumed by only 5 per cent of respondents in the previous day and or night. While there are minor differences in food group consumption across comparison groups, most are statistically insignificant, except for dark green vegetables, which were consumed more frequently in rural areas than in urban ones, likely due to greater access to these items in rural areas (from own production). Additionally, the consumption patterns of most food groups are similar between men and women, except for pulses and nuts/seeds. A higher percentage of women consume pulses (5 per cent) compared with men (1.5 per cent), a difference that is statistically significant at the 5 per cent level. Similarly, more women (5 per cent) consume nuts and seeds compared with men (2.9 per cent), with this difference being statistically significant at the 10 per cent level.

Table 8.3: Adult unhealthy food and drink consumption patterns

Indicator	Overall	Region		Gender		Impact evaluation		
		Rural	Urban	Male	Female	Treat.	Comp.	Adj. diff.
Sweet beverage consumption (%)	0.473	0.460***	0.526	0.536**	0.462	0.462	0.483	–0.005
Unhealthy food consumption	0.272	0.287**	0.236	0.245	0.283	0.277	0.278	–0.026
Consumption of unhealthy food and drink categories:								
Baked/grain-based sweets	0.111	0.123**	0.063	0.099	0.113	0.110	0.112	0.000
Other sweets	0.084	0.091***	0.056	0.032***	0.093	0.077	0.091	–0.015
Packaged ultra-processed salty snacks	0.010	0.011	0.004	0.003	0.012	0.009	0.011	–0.002
Instant noodles	0.111	0.106***	0.132	0.122	0.109	0.119	0.103	–0.019
Deep-fried food	0.038	0.043***	0.017	0.035	0.038	0.037	0.039	0.019
Soft/energy drinks	0.283	0.282	0.286	0.364***	0.269	0.267	0.299	–0.015
Sweet tea/coffee/milk drinks	0.143	0.133***	0.182	0.181*	0.136	0.141	0.144	–0.006
Fruit juice/drinks	0.133	0.127	0.156	0.111	0.136	0.138	0.128	–0.006
N	2,404	1,942	462	343	2,061	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Consumption of unhealthy food and drink among adults

The results indicate high consumption of unhealthy foods and beverages among adults (*see Table 8.3*). Overall, 47.3 per cent of adults in the sample consume sweet beverages, with men (53.6 per cent) consuming more than women (46.2 per cent), a difference statistically significant at the 5 per cent level. In comparison, the CDHS 2021/22 reported that approximately 63 per cent of all women consumed sweet beverages, and 50 per cent of those in the lowest wealth quintile. Additionally, urban residents consumed more sweet beverages (52.6 per cent) than rural residents (46 per cent), with this difference being statistically significant at the 1 per cent level. These disparities were primarily driven by the consumption of soft drinks and tea, possibly due to greater availability of resources and access to these foods in urban areas.

Additionally, 27.2 per cent of the sample consumed unhealthy foods such as instant noodles, deep-fried foods, baked grain-based sweets and packaged ultra-processed salty snacks, a figure slightly lower than the national average, as reported by CDHS 2021/22 (33 per cent). Significant differences were observed between rural and urban residents, with rural residents consuming more (28.7 per cent) compared with urban residents (23.6 per cent), a statistically significant difference at the 5 per cent level. These disparities were primarily driven by the consumption of instant noodles and deep-fried foods. Notably, this rural–urban difference in unhealthy food consumption was reversed compared with the CDHS 2021/22, where rural residents consumed less (31.5 per cent) than urban residents (35 per cent).

8.3 Food security

Food Insecurity Experience Scale (FIES)

In order to measure the level of food insecurity at household level, the Food Insecurity Experience Scale (FIES) was calculated. This indicator is calculated from a set of eight questions which ask about the experiences of household members regarding access to food in the last 30 days. The complete set of eight questions is included in Annex B.

Table 8.4: Food security

Indicator	Overall mean	Treat. mean	Comp. mean	Adjusted difference	Rural	Urban
	(1)	(2)	(3)	(4)	(5)	(6)
Households that are food insecure – FIES (%)	0.597	0.616	0.579	0.012	0.613	0.529
Moderately food insecure	0.579	0.596	0.563	0.010	0.594	0.518
Severely food insecure	0.018	0.020	0.016	0.002	0.020	0.011
Households never worried about lack of enough food to eat	0.082	0.077	0.088	0.022	0.085	0.073
Households have sufficient nutritious foods	0.309	0.290	0.328	–0.016	0.288***	0.398
N	2,382	1,182	1,200		1,927	455

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Approximately 60 per cent of households in the baseline survey were food insecure, with 1.8 per cent classified as severely food insecure (*see Table 8.4*). This was higher than the 2023 prevalence rate (50.5 per cent), possibly due to the baseline sample's focus on households with IDPoor and at-risk households.[47] Although food insecurity levels differed between the treatment and comparison groups, these differences were not statistically significant. Rural households experienced higher food insecurity (61 per cent) than urban households (53 per cent), but this variation was also not significant.

About 8 per cent of households never worried about food shortages, while only 31 per cent had adequate access to nutritious food. Significantly fewer households in the treatment group (29 per cent) had access to nutritious food compared with the comparison group (32.8 per cent), although the difference was not statistically significant. Urban households (39.8 per cent) had significantly better access to nutritious food than rural households (28.8 per cent), with this difference significant at the 1 per cent level.

Coping with food insecurity

Households often employ various coping strategies to address food access challenges. In order to assess these strategies and their severity, the reduced Coping Strategies Index (rCSI) and the Livelihood Coping Strategies – Essential Needs (LCS-EN) were computed and reported (see Annex B for strategies included in the LCS-EN). The rCSI measures the frequency and severity of strategies used in the past seven days to manage food shortages or lack of money to buy food, with values ranging from 0 to 56, where higher scores indicate more severe coping.

By contrast, the LCS-EN measure evaluates households' coping capacity over the medium term (30 days) by examining the depletion of assets by households in order to meet essential needs such as food, shelter, education and health. These coping strategies are classified according to three levels of severity: stress, crisis and emergency. Stress strategies reflect reduced capacity to handle future shocks, crisis strategies often reduce future productivity, and emergency strategies severely compromise long-term resilience and are harder to reverse.

Table 8.5: Coping strategies adopted to access food

Indicator	Overall mean	Treat. mean	Comp. mean	Adj. diff.	Rural	Urban	Diff.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Reduced Coping Strategies Index	**10.98**	**11.11**	**10.85**	**–0.746**	**11.10**	**10.60**	**0.51**
Reduced number of meals (%)	0.251	0.259	0.243	–0.016	0.281	0.126	0.155
Reduced meal sizes or proportions (%)	0.360	0.382	0.339	0.008	0.368	0.327	0.041
Reduced meal sizes by adults (%)	0.409	0.431	0.388	0.001	0.421	0.361	0.060
Borrowed food from relative/friend (%)	0.422	0.434	0.410	–0.014	0.426	0.405	0.021
Relied on less preferred food (%)	0.714	0.735	0.692	0.039	0.730	0.643	0.087

LCS -EN (%)	0.707	0.706	0.709	–0.025	0.814	0.682	0.132
Stress coping strategies	0.292	0.278	0.306	–0.052*	0.331	0.283	0.049
Crisis coping strategies	0.258	0.260	0.257	–0.001	0.297	0.249	0.047
Emergency coping strategies	0.157	0.167	0.147	0.028	0.186	0.150	0.036
N	2,402	1,196	1,208		1,942	462	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). Regional differences not adjusted for treatment, cluster and strata dummies. * 10% significance; ** 5% significance; *** 1% significance.

While households are using these negative strategies, the majority are employing less severe strategies. For example, the overall average rCSI score is 10.98 on a scale from 0 to 56 (*see Table 8.5*). When examining the short-term strategies adopted, the evidence suggests that the most used strategy is relying on less preferred or less expensive food – approximately 71 per cent of households reported using this strategy.[48] In contrast, only about 25 per cent of households reduced the number of meals consumed per day in the last seven days, a much more severe coping mechanism.

When households had to adopt the strategy of reducing meal sizes, restricting consumption in favour of children or reducing the number of meals, the evidence shows intra-household gender imbalances, however, with female adults sacrificing their food consumption more often compared with their male counterparts for the benefit of the entire family (*see Table 8.6*). As one of the objectives of the Family Package is to improve power dynamics within the household, behaviour change activities might need to be included in the programme to bridge this gap. Most households prefer to share this burden equally among all adults or all household members.

Table 8.6: Female household members restricting consumption compared with men

Who in your household has …?	Male adults (%)	Female adults (%)	Other options (%)†	*N*
reduced meal sizes	0.076	0.379	0.545	866
restricted consumption by adults in order for young children to eat	0.080	0.437	0.483	984
reduced the number of meals per day	0.091	0.436	0.473	603

Note: † These include all adults equally or all family members equally or mainly children.

Analysis of LCS-EN data indicates that households are not only adopting negative coping strategies as a short-term response to food shortages but also as a medium-term coping mechanism (*see Table 8.5*). Regional disaggregation reveals that rural households (81.4 per cent) are more likely to employ these strategies than urban households (68.2 per cent), a statistically significant difference at the 1 per cent level. Notably, no significant differences were observed between the treatment and comparison groups regarding all coping strategies adopted, except for stress coping strategies. However, this statistical significance was weak (10 per cent) and also relatively small (5 pp difference).

9. Shocks and coping strategies

Box 5: Key findings on shocks and coping strategies

- Households experienced an average of 1.38 shocks in the past 12 months, with 80 per cent affected by at least one shock.
- The most common shocks were abnormally high food prices (experienced by 38 per cent of households), drought/erratic rainfall (37 per cent) and high levels of crop/livestock pests or diseases (13 per cent).
- The study finds that 56 per cent of households used positive coping strategies, such as reducing unnecessary expenditure against shocks, with no significant difference between the treatment and comparison households.
- About three quarters of households used negative coping strategies, such as changing consumption habits, which may deplete the resilience of households, their growth, health and education of children.
- The three most common specific coping mechanisms were reducing unnecessary expenditure (39 per cent), changing consumption habits (31 per cent) and household members working in small jobs (18 per cent).
- One in every three households employed no strategy to cope with shocks.

Table 9.1 presents households' exposure to idiosyncratic and covariate shocks in the past 12 months. The average number of shocks affecting households in the past 12 months was 1.38, with the treatment group experiencing slightly more shocks (1.41) compared with the comparison group (1.35). The data also indicate that 80 per cent of households were affected by at least one shock during the last 12 months, with no statistically significant difference between the treatment and comparison groups. The number of covariate shocks (shocks that affect the whole community) was significantly higher (at the 5 per cent level) in the treatment group (1.13) compared with the comparison group (1.04). Conversely, the number of idiosyncratic shocks (shocks that affect individual households) was lower in the treatment group (0.28) compared with the comparison group (0.31), which was again significant at the 1 per cent level. The three most common types of shocks affecting households were abnormally high food prices (38 per cent), drought/erratic rainfall (37 per cent) and abnormally high level of crop/livestock pests or diseases (13 per cent), with no significant differences between the treatment and comparison groups. A study by Nguyen and co-workers also shows that while illness and livestock diseases affected 45 per cent and 30 per cent of households, respectively, drought and flood affected 15 per cent of sample households, respectively, which is comparable to our findings by shock type, but they differ in the percentage of households that experienced these major shocks.[49]

The study further categorized shocks by type as follows.

- **Natural shocks:** Drought/erratic rainfall and floods/landslides.
- **Family- and health-related shocks:** Serious illness or accident affecting one or more members of the household; death of a breadwinner in the household; household breakdown (divorce/separation/death/migration); insufficient household food stock.

- **Farming and reduction in income shocks:** Abnormally high level of crop/livestock pests or diseases; abnormally low prices for agricultural production; high farm input costs; high food prices; delay in regular assistance or out-of-household assistance payments; unexpected decrease/decrease in regular/financial assistance from outside the household; end of regular assistance/financial assistance from outside the household; harvest/crop destroyed (e.g., by fire).
- **Loss of assets:** Theft of money, valuables, assets or agricultural production; destroyed house (e.g., due to fire, flood or wind).
- **Conflict.**

The results show that 49 per cent of households were affected by shocks related to farming and reduction in income, a finding that was similar in both treatment and comparison households. The study also finds that 44 per cent of households experienced natural shocks, including drought/erratic rainfall or floods/landslides. Baseline balance has not been achieved between the treatment and comparison households in most of the types of shocks affecting the households.

Table 9.1: Households' experiences of shocks

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Number of shocks affecting the household in the past 12 months	1.382	1.414	1.350	0.089
Household was affected by shock during the last 12 months	0.798	0.798	0.798	0.021
Number of covariate shocks	1.087	1.132	1.041	0.181**
Number of idiosyncratic shocks	0.295	0.282	0.309	–0.091***
Top three shocks affecting households:				
Abnormally high food prices	0.383	0.392	0.374	0.012
Drought/erratic rainfall	0.371	0.379	0.364	0.022
Abnormally high level of crop/livestock pests or diseases	0.126	0.135	0.117	0.031
Types of shocks experienced:				
Natural shocks (e.g., drought, flood, etc.)	0.441	0.451	0.432	0.024
Family- and health-related shocks (e.g., death of member)	0.131	0.126	0.136	–0.035*
Farming-related and reduction in income	0.486	0.502	0.470	0.067*
Loss of assets	0.051	0.049	0.053	–0.044***
Conflict-related shocks	0.005	0.008	0.003	0.001
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 9.2 presents baseline data comparing treatment and comparison groups across various coping strategies against various shocks affecting households. The findings show that 57 per cent of treatment and 55 per cent of comparison households used positive strategies to deal with various shocks. Positive coping strategies include spending savings, receiving help from relatives/friends, government/state aid, assistance from religious organizations or NGOs, fair trade, growing market gardens, reducing unnecessary expenditure, sale of livestock and food stocks.

Negative coping strategies were used by about 72 per cent of treatment households and 74 per cent of comparison households; the difference between the two groups is statistically insignificant. Negative coping strategies include the sale of household productive assets, changing consumption habits, sending children out for paid employment, sending children to live somewhere else, reducing spending on health or education, taking children out of school, having children get married, begging and obtaining credit.

The study also finds that the most important coping mechanisms used by households to deal with various shocks include reducing unnecessary expenditure (39 per cent), changing consumption habits (31 per cent) and household members working in small jobs (18 per cent). A substantial 36 per cent of households did not employ any coping mechanisms to mitigate the impact of shocks. This has been considered a negative strategy. Overall, the study finds no significant differences in coping strategies and the most commonly used coping mechanisms between the treatment and comparison households, indicating that the baseline characteristics of households in both groups are comparable.

Table 9.2: Coping strategies among households that experienced shocks

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Share of households using positive coping strategies against shocks	0.563	0.574	0.552	–0.006
Share of households using negative coping strategies against shocks	0.731	0.723	0.739	–0.041
Share of households using ambiguous coping strategies against shocks	0.187	0.188	0.186	–0.026
Most important coping mechanisms:				
Reduce unnecessary expenditure	0.390	0.406	0.374	–0.003
No strategy	0.360	0.364	0.355	0.028
Change consumption habits	0.310	0.312	0.307	–0.016
Do small jobs	0.184	0.186	0.183	–0.019
N	1,919	955	964	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance. Number of observations is among households that experienced at least one shock in the previous 12 months.

10. Financial assets and inclusion

Box 6: Key findings on financial assets and inclusion

- A small proportion of households have savings (7 per cent), with an average savings amount of approximately KHR 900,000 (USD 219) among those who save. Three quarters of households with current savings saved at home, with only 8 per cent saved in the bank, showing a large prevalence of informality in the financial sector.
- About 26 per cent of households have outstanding loans obtained in the last 12 months, with an average loan value of KHR 1.95 million (USD 474).
- The study also finds that about 9 per cent of households reported that they had received one of the Family Package benefits in the last 12 months, with 6 per cent receiving the standard benefit. Among those who received cash from the Family Package, 86 per cent spent it, confirming a low savings rate from these transfers.
- About 36 per cent of households receive other social assistance (than Family Package) from the government, while 18 per cent receive remittances. On average, households received slightly less than one transfer in the last 12 months.
- The average amount of transfers received from informal sources was KHR 2,418,096 (USD 589), while transfers from within Cambodia averaged KHR 825,560 (USD 201). Transfers from formal sources averaged KHR 495,433 (USD 120).
- About 88 per cent of households have access to mobile phones, indicating high mobile penetration and the opportunity for wider coverage for mobile-based financial systems. Financial inclusion remains low, however, with only 17 per cent of households having an account at a bank or with a mobile money service provider.

Table 10.1 presents baseline data on households' savings behaviour and access to loans. The variables include the percentage of households with any monetary savings currently, the total amount of household savings and the percentage of households saving through various methods (at home, in a bank, in a microfinance institution, etc.). The data indicate a low rate of monetary savings among households, with only 7 per cent reporting any current savings. Among them, the average total household savings amount is approximately KHR 900,000 (approx. USD 219). Among those with current savings, the results show that 75 per cent saved at home, followed by 8 per cent who saved in banks. About one in every eight households also saved by other means. The treatment and comparison groups appear to be balanced on these variables. These findings align with the World Bank's Cambodia Country Economic Memorandum, which notes that limited savings and high reliance on informal lending pose challenges for improved financial inclusion in Cambodia. The report indicates that while 51 per cent of adults had saved some money within the past year, this percentage dropped to 22 per cent when considering savings at any point in time. The report further highlights that participation in formal savings is only 5 per cent.[50]

Table 10.1: Savings and access to loans

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage of households that have any monetary savings	0.071	0.068	0.074	0.018
N	2,404	1,196	1,208	
Among those who saved:				
Average household savings amount (KHR)	894,550	902,050	887,809	–35,150
Place of savings:				
At home	0.753	0.753	0.753	0.045
In bank	0.082	0.086	0.079	–0.015
In MFI	0.012	0.012	0.011	0.012
In tong tin pot	0.029	0.049	0.011	–0.028
Through other means	0.129	0.099	0.157	–0.031
N	170	81	89	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 10.2 presents data on loan access, outstanding loan prevalence and sources. Approximately 26 per cent of households had outstanding loans obtained within the past 12 months, averaging 0.31 loans per household when considering the entire sample. The average value of these outstanding loans among the full sample (including those that had no loans) was KHR 1.95 million (USD 474).

Table 10.2: Access to loans and sources

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage of households with outstanding loans obtained in the last 12 months	0.260	0.267	0.254	–0.020
Number of outstanding debts or loans obtained by households in the last 12 months	0.313	0.312	0.315	–0.025
Average of all outstanding loans per household (KHR)	1,947,571	2,050,837	1,845,331	543,960
N	2,404	1,196	1,208	

Among households with outstanding loans:				
Share of households with loans from formal sources only	0.390	0.389	0.391	–0.068
Share of households with loans from informal sources only	0.534	0.545	0.521	0.041
Share of households with loans from both sources	0.056	0.041	0.072	0.004
Average of loans from formal sources (KHR)	6,585,313	6,731,524	6,433,387	2,373,522
Average of loans from informal sources (KHR)	889,923	951,072	826,384	31,211
N	626	319	307	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

Examining loan characteristics among households with outstanding loans, the findings reveal that slightly over half (53 per cent) obtained loans exclusively from informal sources, such as friends, relatives, neighbours, informal money lenders and tong tin pots. In contrast, 39 per cent obtained loans solely from formal sources such as banks and microfinance institutions (MFIs). Only about 6 per cent of households utilized both formal and informal sources. Regarding loan sizes, however, the study indicates that households tended to rely on formal sources for larger loans. The average value of all outstanding loans per household from formal sources was approximately KHR 6.59 million (USD 1,600), while the average value of loans from informal sources was KHR 889,923 (USD 216). All indicators are balanced between the treatment and comparison households.

Table 10.3 presents data on the primary purposes of outstanding loans obtained within the past 12 months. The findings reveal that the most common reasons for acquiring loans were for food expenses (24.4 per cent) and health care expenses (18.2 per cent). Additionally, 16.5 per cent and 14.5 per cent of households obtained at least one of the outstanding loans to purchase agricultural or fishing inputs and to pay off existing debts, respectively. When comparing the treatment and comparison groups, a balanced distribution was observed for all loan purposes, except for education. The treatment group was slightly more likely to obtain loans for educational purposes (2.8 per cent) compared with the comparison group (1.3 per cent). The remaining indicators exhibited balance between the two groups.

Table 10.3: Purposes of loans obtained

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Food	0.244	0.235	0.254	0.016
Health care expenses	0.182	0.163	0.202	–0.063
Agriculture	0.166	0.135	0.199	0.002
Paying debts	0.145	0.147	0.143	–0.004
Asset purchase	0.083	0.082	0.085	–0.036
Home repair	0.081	0.082	0.081	–0.038
Business	0.078	0.082	0.075	0.036
Ceremonies	0.035	0.047	0.023	0.050
Education (self or others)	0.021	0.028	0.013	0.041*
N	626	319	307	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 10.4 also presents the baseline situation on households' access to cash transfers from various components of the Family Package Programme. The study collected data on whether households received support from the standard benefit, benefits for members with specific characteristics (pregnant women, school-aged children, the elderly and persons with disabilities), and whether cash received from the programme had been spent. Results indicate that 6 per cent of households reported that they had received the Family Package standard benefit, with small percentages of households reporting that they had received specific components, such as cash transfers for pregnant women and children aged under 2 years (1 per cent), and support for school-aged children (1 per cent). Overall, 9 per cent of households reported receiving at least one of the Family Package benefits in the last 12 months.[51] The results also show that a high percentage of households (86 per cent) who received cash from the Family Package also spent it, indicating a low rate of savings from transfers. As can be expected, the results underscore that the share of households who received the standard benefit, transfers for school-aged children and any other benefits in the last 12 months are not balanced between the treatment and comparison households.

Table 10.4: Transfers from the Family Package Programme

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Family Package (FP) standard benefit	0.062	0.080	0.043	0.033**
FP for pregnant women and children aged under 2 years	0.012	0.016	0.007	0.010
FP for children in school (Grades 1–12)	0.005	0.005	0.006	–0.009*
FP for the elderly (60+ years)	0.007	0.008	0.006	0.008
FP for persons with disabilities	0.003	0.003	0.002	–0.005
FP for persons living with HIV/AIDS	0.001	0.001	0.001	0.000
Share of households receiving FP benefits in the last 12 months	0.088	0.111	0.065	0.039**
N	2,404	1,196	1,208	
Share of households who spent cash received from FP	0.858	0.864	0.848	0.015
N	211	132	79	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Baseline characteristics on households' access to other types of social safety nets, including scholarships, transfers from NGOs, pension benefits and other forms of social assistance, are also presented in Table 10.5. The data show that 36 per cent of households receive other forms of social assistance from the government, while 18 per cent receive remittances.[52] When examining the sources of these remittances, the findings reveal that 11 per cent of households received remittances from within Cambodia, while 8 per cent obtained them from abroad. Additionally, 6 per cent of households also received emergency cash assistance from the government. Overall, households received just under one transfer on average in the past 12 months. The study also explored the extent to which households rely on formal and informal cash transfers. The findings show that while 51 per cent of households received cash transfers from formal sources such as government transfers in the past 12 months, only 21 per cent reported receiving transfers from informal sources such as remittances.

Looking at the balance between treatment and comparison groups, the study finds no statistically significant differences between the treatment and comparison groups for most indicators, except for unemployment benefits from the government (1 percentage point lower in the treatment group, $p < 0.1$). This suggests that balance has largely been achieved for social safety net access variables before programme intervention, and that IDPoor and at-risk households appear to be similar in terms of access to other forms of social support before the intervention. These findings are in line with the World Bank's 2022 Cambodia Poverty Assessment report, which notes the increasing role of social assistance programmes, but highlights the need for further expansion and improved targeting.[53]

Table 10.5: Access to other social safety nets (last 12 months)

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Other government scholarships, stipends for any student member of the household	0.042	0.044	0.040	0.006
Other scholarships, stipends for any student member of the household	0.020	0.023	0.017	0.008
Transfers (assistance/support) from NGO or other institutions (non-credit)	0.017	0.018	0.017	0.001
Pension benefits for retired elderly	0.008	0.008	0.008	0.004
Other social assistance from government	0.363	0.355	0.370	–0.020
Emergency cash assistance from government	0.062	0.065	0.058	0.025
Employment injury assistance benefits	0.000	0.000	0.000	0.000
Unemployment benefits (from government)	0.004	0.005	0.003	–0.006*
Unemployment benefits (from non-government)	0.000	0.000	0.000	0.000
Remittances	0.183	0.179	0.186	–0.018
Percentage of households receiving remittances from within Cambodia	0.111	0.110	0.113	–0.003
Percentage of households receiving remittances from outside Cambodia	0.080	0.079	0.081	–0.019
N	2,404	1,196	1,208	
Last 12 months:				
Number of total transfers received	0.788	0.811	0.766	0.037
Percentage of households receiving cash transfers from formal sources	0.512	0.528	0.497	0.054
Percentage of households receiving cash transfers from informal sources	0.213	0.214	0.211	–0.004
Share of households with no transfers	0.376	0.363	0.388	–0.035
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 10.6 presents baseline data on the value of transfers received by households in the last 12 months. The results indicate that households received the highest value of transfers from informal sources, averaging KHR 2,418,096 (USD 589). Transfers from within Cambodia averaged KHR 825,560 (USD 201), while those from outside Cambodia were KHR 403,970 (USD 98). Formal sources provided an average of KHR 495,433 (USD 120) in transfers. The lack of statistically significant differences in the last column suggests that balance has been achieved between treatment and comparison groups for these transfer amounts before programme intervention. These findings align with the World Bank's Cambodia Poverty Assessment 2022 and the 2023 Cambodia Economic Update, which jointly highlight the growing importance of remittances and the informal economy in supporting household incomes. The Poverty Assessment report notes that domestic remittances have become increasingly important, particularly for rural households, which is reflected in our data showing substantial transfers from within Cambodia. The World Bank report shows that the proportion of households receiving remittances originating from within Cambodia more than doubled between 2009 and 2019/20, increasing from 17 per cent to 43 per cent in 2019/20; the volume of remittances also grew sixfold.[54] The relatively lower amounts from formal sources in our study (KHR 495,433) compared with informal sources (KHR 2,418,096) echo the World Bank's findings on the dominance of the informal sector in Cambodia.[55]

Table 10.6: Amount of transfers received (last 12 months)

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Average of all transfers per household received from all informal sources	2,418,096	2,303,570	2,533,071	275,818
N	511	256	255	
Average of all transfers per household received from within Cambodia	825,560	809,842	841,768	45,085
Average of all transfers per household received from outside Cambodia	403,970	383,159	425,429	70,493
N	1,501	762	739	
Average of all transfers per household received from all formal sources	495,433	506,106	484,209	2,114
N	1,231	631	600	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Households were also asked if anyone in the household owns mobile phones and has access to accounts at a bank, with a mobile money service provider or other financial institutions, in order to capture the state of households' access to formal financial services. The data indicate high mobile phone access, with 88 per cent of respondents having access to mobile phones (*see Table 10.7*). Financial inclusion remains low, however, with only 17 per cent of households having an account at a bank, with a mobile money service provider or any other financial institutions. There are no statistically significant differences between the treatment and comparison groups for these indicators. The results on mobile phone ownership align with the World Bank's Poverty Assessment, which highlights the rapid growth in mobile phone penetration (increased from 83 per cent in 2014 to 93 per cent in 2019), with the rise concentrated mainly among the poor (14 pp), showing the potential for mobile-based financial systems to reach more poor households in Cambodia.[56] The 2021/22 CDHS also finds that while 91 per cent of men and 85 per cent of women own a mobile phone, slightly more women (29 per cent) than men (27 per cent) have and used a bank account or mobile phone for financial transactions in the last 12 months.[57] Our sample households have lower access to banking and mobile-based financial systems.

Table 10.7: Financial inclusion

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Household has access to mobile phones	0.878	0.868	0.888	–0.019
Share of households with an account at a bank, with a mobile money service provider or any other financial institutions	0.173	0.156	0.190	–0.017
N	2,400	1,195	1,205	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

11. Education

Box 7: Key findings on education

- Enrolment rates for school-aged children were high, over 90 per cent for children aged 6–14 years. Enrolment was much lower among students aged 15–17 years at 55 per cent.
- Dropout rates were notably low in comparison to national data, with only 1 per cent of students having dropped out since the previous school year.
- Most educational indicators, including enrolment, attendance, receiving a scholarship and educational expenditure, are higher among girls than boys, consistent with national level figures.
- Educational outcomes were largely balanced between the treatment and comparison households, with a notable exception being school feeding programme participation, which was higher in the comparison group, and the highest grade attained for upper secondary school-aged children.

Table 11.1 provides a detailed comparison of education indicators between the treatment and comparisons groups. Two indicators out of the 15 indicators show a statistically significant difference between the groups. First, a statistically significant difference is observed for the proportion of students participating in school feeding programmes, which is higher among the comparison group at 17 per cent, compared with 15 per cent in the treatment group, and is significant at the 1 per cent level. Second, the highest grade attained for students aged 15–17 also showed a statistically significant difference, with students in the treatment group observed to have completed slightly more years of education at 7.56 compared with 7.42 in the comparison group, with this difference being statistically significant at the 5 per cent level. The remaining indicators, including enrolment rates across various age groups, dropout rates, progression rates and re-enrolment rates, do not show any statistically significant difference. This suggests that, at baseline, the treatment and comparison groups are relatively balanced with respect to education indicators.

Table 11.1: Education indicators

Indicator	Overall mean	Female mean	Male mean	Treatment mean	Comparison mean	Adjusted difference
	(1)			(2)	(3)	(4)
Enrolled 3–5-year-olds	0.348	0.380	0.316	0.324	0.376	–0.091
N	687	342	345	373	314	
Enrolled 6–11-year-olds	0.951	0.964	0.939	0.953	0.949	0.000
N	1,553	769	784	811	742	

Enrolled 12–14-year-olds	0.902	0.918	0.885	0.887	0.918	–0.030
N	813	413	400	433	380	
Enrolled 15–17-year-olds	0.554	0.620	0.492	0.561	0.547	0.113
N	590	287	303	301	289	
Correct age for grade	0.222	0.232	0.211	0.216	0.228	–0.005
N	2,903	1,498	1,405	1,506	1,397	
Dropout rate	0.011	0.011	0.011	0.009	0.013	–0.011
N	1,917	1,002	915	985	932	
Progression rate	0.974	0.977	0.972	0.979	0.970	0.000
N	1,917	1,002	915	985	932	
Re-enrolment rate	0.010	0.016	0.006	0.012	0.007	0.008
N	307	127	180	166	141	
Highest grade attained: 6–11	2.915	3.025	2.807	2.925	2.904	0.111
N	1,553	769	784	811	742	
Highest grade attained: 12–14	4.941	5.065	4.812	4.843	5.053	0.433
N	812	413	399	433	379	
Highest grade attained: 15–17	7.496	7.838	7.103	7.566	7.420	0.908**
N	335	179	156	173	162	
Full week attendance	0.899	0.915	0.882	0.916	0.881	0.033
N	2,903	1,498	1,405	1,506	1,397	
Receiving scholarship	0.102	0.116	0.086	0.103	0.100	–0.014
N	2,902	1,498	1,404	1,505	1,397	
Participating in school feeding	0.161	0.158	0.165	0.154	0.169	–0.070***
N	2,902	1,498	1,404	1,505	1,397	
Total annual education expenditure per student (KHR)	326,283	346,291	304,974	317,244	335,963	-2,999
N	2,922	1,507	1,415	1,511	1,411	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Comparable education data are not readily available for all of the indicators considered for the Family Package analysis. For those that do exist, comparisons reveal variable levels of alignment between baseline findings and national statistics. Notably, high enrolment rates for 6–11-year-olds and 12–14-year-olds of 95 per cent and 90 per cent, respectively, are similar to the high attendance rate of 93 per cent for children aged 6–14 years observed in the 2021 Cambodia Socio-Economic Survey.[58] While overall dropout rates are generally not considered in national statistics, however, the average dropout rate of 1 per cent in the baseline study appears much lower than the 5.8 per cent for pre-primary, 5.4 per cent for primary, 15.4 per cent for lower secondary and 13.7 per cent for upper secondary cited in the latest 2022/23 National Education Congress Report.[59] It must also be considered, however, that the national Education Management Information System does not consider dropouts at the individual level, but rather at the aggregate level, which does not account for elements such as student migration or mortality. As a result of the low dropout rate, the progression rate in the baseline sample is also higher than that observed in national statistics. Additionally, at 16 per cent, the proportion of students participating in school feeding programmes is slightly higher than that reported by the Ministry of Education, Youth and Sports (MoEYS) at 13 per cent in 2022/23; however, this may be due to the selection criteria of the Family Package sampling framework.[60] A similar trend is observed for scholarships, where the baseline, at 10 per cent, is slightly higher than the nationally reported figure of 8 per cent.[61] In terms of educational expenditure, the latest CSES 2021 report noted an average annual educational expenditure per student of KHR 728,000 (USD 177), which is substantially higher than the average in the Family Package sample of KHR 326,283 (just under USD 80).

Applying a gender dimension, female children are seen to be enrolled at a higher rate than their male counterparts across all age groups. This trend aligns with administrative data, where girls are seen to demonstrate higher gross enrolment rates at all levels. Higher rates of enrolment and lower rates of overage enrolment are also seen to translate into higher grade attainment, with female students observed to have completed higher grades than male students in the same age group. Female advantage is also seen to extend to higher re-enrolment rates and higher attendance rates. These trends may be related to the observation that female students are more likely to receive scholarships and, perhaps counterintuitively, also benefit from higher levels of educational expenditure.

12. Maternal and child health

Box 8: Key findings on maternal and child health

- Nearly all women with a live birth in the last two years had at least one antenatal care (ANC) visit for their last-born, with 81 per cent receiving four or more visits.
- Almost all children were delivered at a health facility (96 per cent), and the births were assisted by a skilled health provider (95 per cent).
- Postnatal care (PNC) coverage for women was also high (94 per cent); however, PNC for infants was lower at 78 per cent but was still in line with the national average.
- Immunization rates among children aged 12–23 months were slightly higher than the national average, and they were significantly higher among treatment group children compared with the comparison group.
- In terms of health and nutrition knowledge, (female) respondents demonstrated high levels of knowledge related to first food for newborns (97 per cent) and immediate breastfeeding after delivery (90 per cent), although their knowledge was more limited on the recommended duration of breastfeeding and recommended treatments for diarrhoea.
- Except for immunization coverage, the treatment and comparison groups were well balanced.

In this section, we present the baseline results for maternal and child health indicators, including pregnancy and delivery-related health indicators, immunization, and health and nutrition knowledge.

The first set of indicators are related to antenatal care (ANC), delivery services and postnatal care (PNC). These indicators are constructed for live births in the last two years, similar to indicators reported in the CDHS. In the Family Package baseline sample, nearly all women had at least one ANC visit by a skilled health provider, and just over 80 per cent had at least four visits by any provider (see Table 12.1). These numbers are in line with those reported by the CDHS, which showed that nationally, 99 per cent of women had at least one visit with a skilled health provider, and 86 per cent had four or more visits.[62] In terms of delivery services, the large majority of women delivered their last-born in a health facility (96 per cent), and for a similar share (95 per cent), the birth was attended by a skilled health provider. This nearly universal coverage was also reported in the latest CDHS, with indicator values of 99 per cent for each of these indicators.

In terms of PNC, over 95 per cent of mothers received a health check in the health facility or at home after delivery, and an almost similar share received this check-up within two days after delivery (94 per cent) (*see Table 12.1*). These values compare favourably with the latest CDHS findings, which reported a national average of 84.5 per cent of women with a postnatal check during the first two days after birth. The PNC for newborns was lower in the Family Package sample, with 87.5 per cent of infants receiving a health check, and 78 per cent receiving the health check within two days. This last figure is in line with the CDHS results, which reported a national average of 77 per cent.

Table 12.1: Maternal and neonatal health indicators

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
At least four ANC visits by any provider	0.806	0.805	0.808	–0.126
At least one ANC visit by a skilled health provider	0.985	0.985	0.985	–0.031
Ever breastfed	0.954	0.932	0.977	–0.086
Immediate breastfeeding	0.852	0.857	0.846	0.033
Delivered in a health facility	0.958	0.970	0.946	0.032
Delivery attended by skilled health personnel	0.951	0.962	0.938	0.024
Mothers who received a health check while in a facility or at home following delivery	0.954	0.955	0.954	–0.026
Mothers who received a PNC visit within 2 days after delivery	0.939	0.932	0.946	–0.004
Infants who received a health check while in a facility or at home following delivery	0.875	0.842	0.908	–0.105
Infants who received a PNC visit within 2 days after delivery	0.783	0.744	0.823	–0.058
N	263	133	130	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

The next set of indicators relate to immunization coverage. For each child aged under 2 years in the household, enumerators asked to see the yellow vaccination card. Nearly all children aged under 2 years were reported to possess this card (99 per cent), yet the vaccination card was observed by the enumerator for about 80 per cent of children (*see Table 12.2*). There is a significant difference between the treatment and comparison groups on this indicator, with children in the treatment group more often being able to show the card. Just over half of the children aged under 2 years in the sample had received a vitamin A supplement during the last six months, with no difference between the treatment and comparison groups. The possession of vaccination cards and the presence of the vaccination card are in line with the results in the recent CDHS, with values of 98 per cent and 82 per cent, respectively.[63]

For vaccination coverage, we constructed an indicator for receiving all the basic vaccinations, which comprise the Bacillus Calmette–Guérin (BCG) vaccine, three doses each of a polio vaccine and a diphtheria-tetanus-pertussis (DTP)-containing vaccine, and a single dose of a measles-containing vaccine. We also constructed an indicator for being fully vaccinated according to the national schedule in Cambodia. This includes the vaccinations from the basic vaccination coverage, plus hepatitis B, one dose of inactivated polio vaccine (IPV) and three doses of pneumococcal conjugate vaccine (PCV). These indicators are constructed for children aged 12–23 months. We observe a basic vaccination coverage rate of 77 per cent among the Family Package sample, and we also note a significant difference in this indicator in favour of the treatment group (80 per cent vs. 73 per cent) (*see Table 12.2*). The overall mean in the sample is again in line with findings from the CDHS, which reported a

national average of 76 per cent for basic vaccination coverage.[64] For vaccination coverage according to the national schedule, we find an overall sample mean of about 70 per cent, with a significantly higher coverage rate for the children in the treatment group (75 per cent vs. 65 per cent). The national average for being fully vaccinated according to the national schedule was 65 per cent in the latest CDHS. The difference in coverage rates between the treatment and comparison groups seems to be driven by differences in the coverage of the IPV, the third dose of DTP, and the second and third doses of the PCV (results not shown). Disaggregating by sex of the child reveals minor differences in favour of boys, but these differences are not statistically significant (*see Table 12.2, columns 5 and 6*).

Table 12.2: Immunization indicators

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference	Girls	Boys
	(1)	(2)	(3)	(4)	(5)	(6)
Has a vaccination card	0.988	0.994	0.982	0.018	0.983	0.994
Vaccination card seen	0.797	0.837	0.756	0.211***	0.775	0.820
Received vitamin A (last 6 months)	0.524	0.517	0.530	0.114	0.532	0.515
N	340	172	168		173	167
Received all basic vaccinations (12–23 months)	0.771	0.808	0.730	0.208**	0.744	0.796
Received all vaccinations according to national schedule (12–23 months)	0.702	0.747	0.652	0.202**	0.678	0.724
N	188	99	89		90	98

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

The baseline survey also asked the main (female) respondent six questions on optimal practices related to nutrition and health for young children. The questions covered topics such as breastfeeding (initiation and duration), foods with important micronutrients (iron and vitamin A) and recommended practices when a child has diarrhoea. We constructed a dummy indicator for a correct answer to each of these six questions, as well as a knowledge index capturing the percentage of correct answers for all six questions. There were 1,236 responses for this module, which represents all the main female respondents, and we also estimated these indicators separately for mothers who have a child aged under 5 years (but results are highly similar).

Table 12.3: Health and nutrition knowledge indicators

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Knows first food for newborn	0.974	0.970	0.979	0.007
Knows to breastfeed immediately	0.904	0.907	0.900	0.007
Knows to breastfeed for 24 months or more	0.171	0.172	0.170	–0.006
Knows iron-rich foods	0.639	0.653	0.625	–0.037
Knows vitamin A-rich foods	0.667	0.661	0.674	–0.058
Knows at least 3 diarrhoea treatments	0.067	0.069	0.065	–0.005
Knowledge index (% of correct answers)	0.570	0.572	0.569	–0.016
N	1,236	623	613	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance.

Our results show that the knowledge index is 0.57 in the sample, indicating that respondents have on average 57 per cent correct answers to these knowledge questions (see Table 12.3). The highest share of correct answers is found for questions on the importance of exclusive breastfeeding and initiation of breastfeeding. About two thirds of the respondents were also able to identify at least one food rich in iron or vitamin A. A lower score for knowledge was observed for questions on the recommended duration of breastfeeding and on reporting at least three recommended treatments for diarrhoea. None of the differences for the knowledge questions were significantly different between the treatment and comparison groups.

13. Health and health care utilization

Box 9: Key findings on health and health care utilization

- About 47 per cent of individuals in the sample reported an illness or injury, with non-communicable diseases (NCDs) being the most common. Illness prevalence was much higher than the national average.
- More than 80 per cent of those with an illness or injury sought health care for their conditions. Health care-seeking behaviour was heavily skewed towards private service providers (85 per cent).
- Care-seeking indicators were significantly higher among individuals in the comparison group than those in the treatment group.
- Almost half of the individuals seeking care (47 per cent) had to resort to coping strategies to pay for health care, including switching to cheaper food or reducing spending on other essential goods or services.
- Nearly 30 per cent of households experienced catastrophic health expenditure (at the 10 per cent level), or 7 per cent at the 25 per cent level.
- Around 8.5 per cent of the households fell into poverty due to health expenditure, with a significantly higher rate among the comparison households.

This section reports on the health outcomes and utilization of health care services in the baseline sample. The prevalence of illnesses or injuries was relatively high, with 46.6 per cent of the individuals in the sample having experienced an illness or injury in the previous month (*see Table 13.1*). This is much higher than the national average of 14.7 per cent reported in CSES 2021. Disaggregating by age group, the prevalence rate is highest among the elderly population (75 per cent) and lowest among school-aged children (33 per cent). About half of children aged under 5 years experienced an illness or injury in the month before the baseline survey. The most common type of illness was an NCD, reported by 32.5 per cent of the sample, followed by communicable diseases (12.9 per cent). About 1 per cent of the sample reported an injury. On average, individuals lost about half a day due to an illness or injury in the month before the baseline survey. Moreover, one third of the individuals in the baseline sample reported a chronic illness (33.7 per cent).

In terms of health care-seeking behaviours, we found that almost 4 in 10 individuals sought care in the month before the baseline survey (39.2 per cent), with a significantly higher rate among individuals in the comparison group (*see Table 13.2*). When considering care-seeking behaviour for an illness or injury, the baseline survey found that about 82 per cent of those with an illness or injury sought care for their condition, again with a significant difference between the treatment and comparison

groups. The provider type was most likely to be a private facility, reported by almost 85 per cent of the individuals who visited a health provider. Only about 15 per cent visited a public health facility. This is consistent with findings from CSES 2021, which reported that 84 per cent of individuals sought care from a private provider, and 15 per cent from a public provider.

Table 13.1: Health outcomes

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Proportion of individuals with an illness or injury	0.466	0.446	0.487	−0.034
N	10,171	5,141	5,030	
Proportion of individuals aged 0–4 years with an illness or injury	0.502	0.467	0.542	−0.037
N	1,009	531	478	
Proportion of individuals aged 5–17 years with an illness or injury	0.333	0.324	0.342	−0.029
N	3,231	1,667	1,564	
Proportion of individuals aged 18–59 years with an illness or injury	0.470	0.450	0.489	−0.050*
N	4,579	2,301	2,278	
Proportion of individuals aged 60 years and above with an illness or injury	0.749	0.735	0.761	0.001
N	1,352	642	710	
Proportion of individuals with communicable diseases	0.129	0.123	0.135	−0.013
Proportion of individuals with NCDs	0.325	0.311	0.339	−0.018
Proportion of individuals with maternal, neonatal, nutritional diseases	0.002	0.002	0.002	0.000
Proportion of individuals with injuries	0.011	0.010	0.011	−0.002
N	10,168	5,141	5,027	
Mean number of days lost due to illness or injury	0.461	0.460	0.463	−0.082
Share of individuals with chronic illness	0.337	0.321	0.353	−0.028
N	10,171	5,141	5,030	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

The baseline survey also asked how individuals financed their health visit and if they had to rely on certain coping strategies to pay for their health care expenses. The findings show that 7 per cent of individuals with a health visit experienced so-called distressed financing by borrowing money, selling assets or selling household production in advance (*see Table 13.2*). In addition, almost half of the sample (47.2 per cent) had to rely on a coping strategy, including switching to cheaper food, reducing spending on other essential goods or services, reducing spending on education or increasing child labour hours. The first two of these coping strategies were the most common. Only 9 per cent of the treatment group used their IDPoor card to pay for health expenditure.

Table 13.2: Health care-seeking behaviours

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Proportion of individuals who sought care (incl. preventive services)	0.392	0.375	0.408	–0.043**
Proportion of individuals who visited at least 1 outpatient service during most recent visit	0.373	0.356	0.390	–0.042**
N	10,171	5,141	5,030	
Share of ill or injured individuals who sought care	0.819	0.818	0.820	–0.045**
N	4,744	2,295	2,449	
Among those who sought care:				
Share of individuals who visited public health facilities	0.149	0.152	0.147	–0.004
Share of individuals who visited private health facilities	0.847	0.845	0.850	0.003
Share of individuals who experienced distress financing (borrowing, selling assets, etc.)	0.070	0.069	0.070	0.011
Share of individuals who relied on coping mechanisms to pay for health services	0.472	0.468	0.476	–0.033
Share of individuals who used their IDPoor card for treatment financing	0.052	0.092	0.013	0.067***
N	3,984	1,930	2,054	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 13.3 presents the average out-of-pocket (OOP) health expenditure per household per year, and it examines indicators related to catastrophic health expenditure and impoverishment due to health expenditure. Average OOP expenditure is around KHR 1.4 million (USD 340) per household, with a higher (but not significant) value for the comparison group. Health represents about 8 per cent of the households' total consumption. At the 10 per cent level, nearly 30 per cent of households experienced catastrophic health expenditure, while at the 25 per cent level, this rate was about 7 per cent. Around 8.5 per cent of the households fell into poverty due to health expenditure, with a significantly higher rate among comparison households. This makes sense, since comparison households are more likely

to be just above the poverty line and thus are more vulnerable to falling into poverty. Poverty rates and impoverishment based on the international poverty line of USD 2.15 purchasing power parity (PPP) was low in the sample, at less than 1 per cent.

Table 13.3: Health expenditure and financial protection

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Mean OOP health expenditure in KHR	1,403,905	1,293,435	1,513,277	-231,872
Mean total household consumption in KHR	15,701,207	15,343,395	16,055,463	43,843
Mean budget share for health	0.081	0.077	0.085	–0.012
Incidence of catastrophic health expenditure (10%)	0.285	0.276	0.295	–0.025
Incidence of catastrophic health expenditure (25%)	0.067	0.053	0.080	–0.029
Impoverishment based on Cambodia national poverty line	0.085	0.062	0.108	–0.042**
Poor based on international poverty line USD 2.15 PPP	0.006	0.009	0.003	–0.003
Impoverishment based on international poverty line USD 2.15 PPP	0.002	0.003	0.002	0.000
N	2,404	1,196	1,208	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

14. Disabilities, participation and health among the elderly and people with disabilities

Box 10: Key findings on disabilities, participation and health among the elderly and people with disabilities

- About 71 per cent of elderly individuals experience at least 'some difficulty' in one of six domains of functionality, with 45 per cent having multiple or severe disabilities. The prevalence of severe limitations is about 21 per cent, while 3 per cent have complete inability in at least one domain. There is a statistically significant difference in the share of elderly people with multiple or severe disabilities between the treatment and comparison groups.
- A high proportion of elderly individuals report no difficulty in participating in community activities (72 per cent), interacting with others (78 per cent) and deciding on daily activities (76 per cent). Access to transportation is more challenging, with only 60 per cent reporting no difficulty. On a positive note, among those with severe limitations, 93 per cent have access to assistive devices and services.
- In contrast, among elderly individuals with disabilities, only 34.3 per cent reported no difficulty in participating in community activities, 44 per cent experienced no difficulties in deciding on their daily activities, and 23 per cent reported no difficulty regarding access to means of transportation. These rates were slightly higher among all people with disabilities aged 4 years and older.
- About 25 per cent of elderly reported no illness or injury, while 65 per cent reported non-communicable diseases (NCDs). Health-seeking behaviour is high, with 85 per cent seeking care for illness and 64 per cent seeking care including preventive services. There are small but significant differences between the two groups for communicable diseases and care-seeking behaviour.
- Non-communicable diseases affect 71 per cent of elderly individuals with disabilities and 63 per cent of all individuals aged above 4 years with disabilities. Health care seeking was also lower among people with disabilities compared with elders and the overall population.

Table 14.1 presents baseline data on disabilities among elderly household members, comparing treatment and comparison groups across various disability indicators. The disability indicators for elderly members were generated using the Washington Group Short Set questions on Functioning (WG-SS). The approach consists of six questions that assess functional difficulties in six core domains: seeing, hearing, walking, cognition, self-care and communication.[65] Respondents are asked to rate their level of difficulty in each domain using a four-point scale: no difficulty, some difficulty, a lot of difficulty, or cannot do it at all. Following the recommended procedure, four disability indicators were generated as follows.

1. At least one instance of 'some difficulty': Identifies individuals reporting at least one domain with 'some difficulty' or worse.
2. Multiple or severe disabilities: Identifies those with at least two instances of 'some difficulties' or one instance of 'a lot of difficulty' or 'cannot do it at all'.
3. Severe limitations: Identifies individuals reporting 'a lot of difficulty' or 'cannot do it at all' in at least one domain.
4. Complete inability: Identifies those who 'cannot do it at all' in at least one domain.

Accordingly, the study finds that approximately 71 per cent of elderly individuals in both groups experience at least 'some difficulty' in one of six domains of functionality, showing a prevalence of disabilities among elderly individuals. About 45 per cent of elderly people have at least two instances of 'some difficulties' or one instance of 'lots of difficulties' or 'cannot do it at all'. The prevalence of severe limitations among the elderly, the recommended cut-off indicator by the Washington Group, is about 21 per cent, representing the share of elderly members who have 'lots of difficulties' or 'cannot do it at all' in at least one domain. The share of elderly individuals with complete inability in at least one domain is about 3 per cent. The data suggest that, overall, there is a good balance between the treatment and comparison elderly groups for most disability indicators, with one notable exception – the share of elderly people who have severe limitations. This indicator shows a statistically significant difference between the treatment and comparison groups. Our finding on the prevalence of disability is consistent with the United Nations Partnership on the Rights of Persons with Disabilities (UNPRPD) report, which notes that 25.6 per cent of the population aged 60 years have disabilities. This by far exceeds the prevalence of disability among the general population, however, which is 4.9 per cent in 2019 (reduced from 9.5 per cent in 2014).[66]

Table 14.1: Disabilities among the elderly

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Member has at least 'some difficulties' from the six domains	0.707	0.707	0.707	0.055
Member has at least two instances of 'some difficulties' or one instance of 'lots of difficulties' or 'cannot do it at all'	0.452	0.462	0.443	0.119***
Member has 'lots of difficulties' or 'cannot do it at all' in any of the domains	0.212	0.218	0.206	0.036
Member cannot do it at all in at least one domain	0.033	0.026	0.039	–0.011
N	1,352	652	700	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 14.2 presents baseline data on community participation and access to services by the elderly, regardless of having disabilities. A high proportion of the elderly report no difficulty in participating in community activities (72 per cent) and in going out and interacting with others (78 per cent). The study also finds that 76 per cent of elderly people have no difficulty in deciding on their own daily activities. Access to means of transportation is relatively more challenging, however, with only 60 per cent reporting no difficulty. About 51 per cent of the elderly with some level of mobility-related challenges (e.g., some difficulty, a lot of difficulty or cannot walk/climb steps at all) have access to assistive devices. Moreover, considering the overall disability index based on the WG-SS among those who have 'severe limitations', 94 per cent have access to assistive devices and services, suggesting a higher level of access to services among elderly people with severe levels of disabilities. There are significant differences between the treatment and comparison groups regarding no difficulty in participation in community activities and in accessing required means of transportation.

Table 14.2: Participation in community and access to services by the elderly

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage of elderly with no difficulty in participating in community activities	0.722	0.704	0.740	–0.096**
Percentage of elderly with no difficulty in going out and interacting with other people	0.778	0.778	0.778	–0.023
Percentage of elderly with no difficulty accessing required transportation means	0.601	0.580	0.621	–0.116**
Percentage of elderly with no difficulty in deciding on their own daily activities	0.764	0.747	0.780	–0.096*
Percentage of elderly with mobility difficulties and access to assistive tools	0.506	0.496	0.515	–0.056
Percentage of elderly with severe limitations and access to assistive devices	0.935	0.927	0.941	–0.024
N	779	372	407	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 14.3 shows indicators related to the participation of members with disabilities in community activities and their access to services. Among the elderly with disabilities, 34.3 per cent reported no difficulty in participating in community activities. Looking at whether elderly people with disabilities have challenges going out and interacting with others, approximately 46 per cent reported no difficulties. Moreover, while overall only 23 per cent of elderly people with disabilities have no difficulty accessing required means of transportation, about 44 per cent have no difficulties in deciding on their daily activities. Balance has been achieved between the treatment and comparison groups in all indicators.

The table also presents the share of all members aged 4 years and above with disabilities who reported no difficulties in participating in community activities, interacting with other community members and regarding access to services. The results show that about 44 per cent of the members, comparable between treatment and comparison groups, reported no difficulty in participating in community activities. There was also balance between the groups in terms of having no difficulties related to accessing required means of transportation, where 38 per cent of members in the treatment and 37 per cent in the comparison households reported no difficulty. The study findings also show that while about half of individuals with mobility difficulties have access to assistive tools, 92 per cent of members with severe disabilities have access to disability-related devices.

Table 14.3: Participation in community activities and access to services by members with disabilities

Indicator	Overall mean (1)	Treatment mean (2)	Comparison mean (3)	Adjusted difference (4)
Elderly people with disability:				
No difficulty in participating in community activities	0.343	0.380	0.306	0.032
No difficulty in going out and interacting with other people	0.458	0.514	0.403	0.102
No difficulty accessing required transportation means	0.231	0.254	0.208	0.043
No difficulty in deciding on their own daily activities	0.437	0.479	0.396	0.066
N	286	142	144	
All members (aged above 4) with disability:				
No difficulty in participating in community activities	0.444	0.442	0.445	-0.023
No difficulty going out and interacting with other people	0.542	0.568	0.517	0.022
No difficulty accessing required transportation means	0.377	0.381	0.372	–0.046
No difficulty in deciding on their own daily activities	0.532	0.565	0.500	0.005
N	568	142	426	
Percentage of members with physical disabilities who need and have access to assistive tools	0.460	0.445	0.474	–0.083*
N	828	248	580	
Percentage of members with disability who have access to disability-related devices	0.920	0.912	0.927	–0.028
N	1,577	765	812	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 14.4 presents baseline data on the health status and health-seeking behaviour of elderly members. The results show that about 25 per cent of the elderly reported no illness or injury, while 65 per cent reported NCDs. Approximately 44 per cent of elderly have one or more chronic illnesses. Health-seeking behaviour is relatively high, with 85 per cent of the elderly seeking care for illness, and 64 per cent seeking care including preventive services.

Table 14.4: Health and health-seeking behaviour of the elderly

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage of elderly with no reported illness or injury	0.251	0.262	0.241	–0.015
Percentage of elderly with communicable diseases	0.082	0.075	0.089	–0.048*
Percentage of elderly with NCDs	0.654	0.647	0.660	0.065
Percentage of elderly with injury/accident	0.010	0.014	0.006	0.006
Percentage of elderly with one or more chronic illnesses	0.439	0.420	0.457	–0.010
Percentage of elderly who sought care (incl. preventive services)	0.643	0.624	0.660	–0.032
Percentage of elderly who sought care for illness	0.853	0.838	0.866	–0.075*
Number of times elderly visited health care provider for illness, injury or any other services	1.221	1.176	1.263	–0.215
Number of different service providers elderly visited	0.595	0.577	0.610	–0.108
Total OOP health expenditure for most recent visit (last 30 days) (KHR)	55,333	49,872	60,419	–3,632
N	1,352	652	700	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

The study also examined the health and health-seeking behaviour of members with disabilities aged above 4 years (*see Table 14.5*) and elderly individuals aged 60 years and above with a disability (*see Table 14.6*). The results indicate that approximately 22 per cent of members with disabilities overall, and 14 per cent of elderly individuals with disabilities, had reported no illness or injury in the past 30 days. Non-communicable diseases were found to be the most common health issue, affecting 71 per cent of elderly individuals and 63 per cent of all individuals with disabilities. Around 52 per cent of members with disabilities and 61 per cent of elderly individuals with disabilities reported having one or more chronic illnesses. The study found high levels of health-seeking behaviour: 71 per cent of elderly individuals with disabilities sought preventive care, and 83 per cent sought curative care, while among those with disabilities aged above 4 years, 62 per cent sought preventive care and 79 per cent sought curative care. Among all members, balance was achieved across all health and health-seeking behaviour indicators, except for the proportion of members with disabilities who sought care for illness. For the elderly, balance between treatment and comparison households was achieved

for most indicators, except for the number of times elderly members visited a health care provider for illness and the number of different service providers they visited, but these differences might be driven be the lower number of observations for these subgroups.

Table 14.5: Health and health-seeking behaviour of members with disabilities (aged 4 years and above)

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage with no illness	0.223	0.248	0.199	0.001
Percentage with communicable diseases	0.120	0.129	0.110	–0.028
Percentage with NCDs	0.629	0.590	0.667	0.040
Percentage with injury/accident	0.023	0.029	0.017	–0.004
Percentage with other illness	0.002	0.000	0.003	–0.005
Percentage with one or more chronic illnesses	0.515	0.442	0.584	–0.054
Percentage who sought care (incl. preventive services)	0.624	0.590	0.656	–0.085
Number of times visited health care provider for illness	1.248	1.158	1.333	–0.429
N	569	142	427	
Percentage who sought care for illness	0.794	0.766	0.820	–0.137**
N	442	121	321	
Number of different service providers visited	0.662	0.591	0.723	–0.105
N	355	98	257	
Average OOP health expenditure for most recent visit (last visit) (KHR)	62,928	40,207	84,633	–28,949
N	569	278	291	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

Table 14.6: Health and health-seeking behaviour of elderly people with disabilities (aged 60 and above)

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
Percentage with no illness	0.140	0.148	0.132	–0.003
Percentage with communicable diseases	0.108	0.120	0.097	–0.042
Percentage with NCDs	0.713	0.690	0.736	0.022
Percentage with injury/accident	0.028	0.035	0.021	0.045
Percentage with other illness	0.003	0.000	0.007	–0.011
Percentage with one or more chronic illnesses	0.612	0.542	0.681	–0.116
Percentage who sought care (incl. preventive services)	0.713	0.690	0.736	–0.067
Number of times visited health care provider for illness	1.441	1.366	1.514	–0.680**
N	286	142	144	
Percentage who sought care for illness	0.825	0.802	0.848	–0.111
N	246	121	125	
Number of different service providers elderly visited	0.667	0.551	0.774	–0.429**
N	204	98	106	
Average OOP health expenditure for most recent visit (last visit) (KHR)	86,311	56,210	115,993	–30,111
N	286	142	144	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

15. Women's decision-making

Box 11: Key findings on women's decision-making

- About 92 per cent of women reported participating (jointly with their husband or alone) in decisions regarding their own earnings.
- Participation in sole or joint decision-making was high, over 90 per cent for decisions involving women's own health care, daily expenditure or visiting friends and family, but slightly lower (89 per cent) for major household purchases.
- An aggregate decision-making index is significantly higher among women in the comparison group (93.3 per cent vs. 91.5 per cent).
- There was imbalance between women in the treatment and comparison households for several indicators, with those in the comparison group demonstrating higher decision-making power.

This section of the report explores the baseline findings on women's decision-making indicators. The baseline survey included a short set of questions, modelled on the CDHS, to elicit responses on participation in decision-making among women on a range of topics, including their own health care, making major household purchases, daily expenditure and making visits to friends and relatives. Women with children were also asked about their participation in decision-making on their children's health care and education. We constructed indicators similar to those reported in the CDHS, except that the CDHS indicator excludes the topic of daily expenditure in the construction of the combined indicator on participation in all decisions. We restrict the sample for this analysis to currently married women between 15 and 49 years old.

According to the CDHS, respondents are considered to participate in decision-making if they make decisions alone or jointly with their spouse. In terms of control over their own earnings, women in the Family Package baseline survey reported that in almost 92 per cent of the cases, they participate in decisions about the use of their own earnings (*see Table 15.1*). There seems to be a slight imbalance in this indicator, with a higher value reported for the comparison group (94 per cent vs. 90 per cent). When compared with the husband's earnings, about 19 per cent of women reported that they earned more than their partner, 54 per cent earned less, and 20 per cent earned about the same. There is also a small imbalance (at the 10 per cent level) for earning more than the partner, which was higher in the treatment group than in the comparison group. Compared with the CDHS findings, more than 97 per cent of women had control over their earnings. Compared with their partner, about 16 per cent earned more, 39 per cent earned less, and 44 per cent earned about the same as their partner.

Table 15.1: Women's decision-making indicators

Indicator	Overall mean (1)	Treatment mean (2)	Comparison mean (3)	Adjusted difference (4)
Control over earnings:				
Joint decision-maker on own earnings	0.918	0.895	0.940	−0.043*
Earns more than partner	0.186	0.201	0.170	0.074*
Earns less than partner	0.536	0.540	0.532	−0.015
Earns the same as partner	0.200	0.182	0.219	−0.048
Partner has no earnings	0.070	0.067	0.073	−0.007
Don't know partner's earnings	0.007	0.010	0.005	−0.004
Participation in decision-making:				
Joint decision-maker on own health care	0.907	0.900	0.914	−0.038
Joint decision-maker on major household purchases	0.887	0.879	0.894	−0.058*
Joint decision-maker on daily expenditure	0.949	0.946	0.953	−0.032
Joint decision-maker on visits to family or relatives	0.936	0.936	0.937	−0.000
Joint decision-maker on all 4 decisions	0.805	0.812	0.799	−0.013
Joint decision-maker on all 3 decisions (CDHS)	0.815	0.817	0.813	−0.021
No decision-maker on any 4 decisions	0.021	0.031	0.011	0.038***
No decision-maker on any 3 decisions (CDHS)	0.026	0.034	0.018	0.036***
Joint decision-maker on children's health care†	0.950	0.936	0.965	−0.058***
Joint decision-maker on children's schooling†	0.926	0.919	0.934	−0.047**
Index on joint decision-making (% of all items)	0.924	0.915	0.933	−0.039**
N	1,227	611	616	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3). * 10% significance; ** 5% significance; *** 1% significance. † Number of observations for this indicator is 1,168 (Treatment = 593, Comparison = 575).

With regard to decision-making on various issues, we find a high rate of participation in the baseline sample – over 90 per cent for three out of four issues, with a slightly lower rate for major household purchases (89 per cent) (*see Table 15.1*). This latter indicator also shows a minor imbalance, with the comparison group reporting a slightly higher rate. These findings are also in line with the CDHS results, which reported participation rates of 92 per cent for women's own health care and major household purchases, and 93 per cent for visiting friends or relatives.

Among women with children, participation in joint decision-making on children's health care and education was also higher than 90 per cent (95 per cent and 93 per cent, respectively). For both indicators, there is a significantly higher participation rate among comparison households compared with the treatment group.

Combining these indicators into one indicator for participating in all four (or three) decisions, we find a participation rate of 80.5 per cent (81.5 per cent for three decisions). This rate is somewhat lower than the rate reported by the CDHS at 88 per cent. We also constructed an overall index indicating the share of decisions in which a woman was participating (including the decision on her own earnings and decisions on children's health care and education, when applicable). This index was on average 92 per cent, but with a significantly higher value in the comparison group (93.3 per cent vs. 91.5 per cent).

16. Perceptions of government

Box 12: Key findings on perceptions of government

- Perceptions of both national and local governments are positive, with high levels of trust scores (8.52 for national government and 8.09 for local government on a 10-point scale).
- There were also positive perceptions of improvements in both national and local government performance over the last five years (8.5 and 8.27, respectively).
- Perceptions of government performance were not significantly different between the comparison and treatment groups.

Households were asked how they perceive the trustworthiness of national and local governments, and whether there have been improvements in service delivery in the past five years. Responses were recorded on a 10-point scale (1 means not trustworthy at all and no improvements at all, whereas 10 means full trustworthiness and substantial improvements in service delivery). Results on the baseline situation are presented in Table 16.1. Overall, perceptions of both national and local governments are positive, with high trust scores (8.52 for national government and 8.09 for local government on a 10-point scale). Respondents also perceive improvements in both national and local government performance over the last five years (8.5 and 8.27, respectively).

Table 16.1: Perceptions about national and local governments

Indicator	Overall mean	Treatment mean	Comparison mean	Adjusted difference
	(1)	(2)	(3)	(4)
National government is trustworthy	8.52	8.56	8.48	0.05
National government has improved in the last 5 years.	8.50	8.53	8.47	0.07
Local government is trustworthy	8.09	8.12	8.07	0.07
Local government service has improved in the last 5 years	8.27	8.28	8.26	–0.06
N	2,384	1,184	1,200	

Note: Adjusted differences and p-values calculated using a Wald test of equality of the two means with standard errors clustered at the village level and controlling for the poverty score and strata dummies (see regression model 1, Section 4.3).
* 10% significance; ** 5% significance; *** 1% significance.

There are no statistically significant differences between the treatment and comparison groups for these indicators. These findings are consistent with the World Bank's 2023 Cambodia Public Finance Review, which notes improvements in overall public services spending but highlights the need for continued reforms. The review shows that the government's overall spending increased from 20.2 per cent in 2011 to 27.9 per cent of gross domestic product (GDP) in 2021, and that spending in the health care and education sectors increased more than in others. The share of social sector spending also increased as a share of GDP (boosted from 4.6 per cent in 2011 to 10.5 per cent in 2021).[67] These improvements may have contributed to higher levels of positive perceptions about national and local governments.

17. Implementation considerations

Box 13: Key findings on implementation considerations

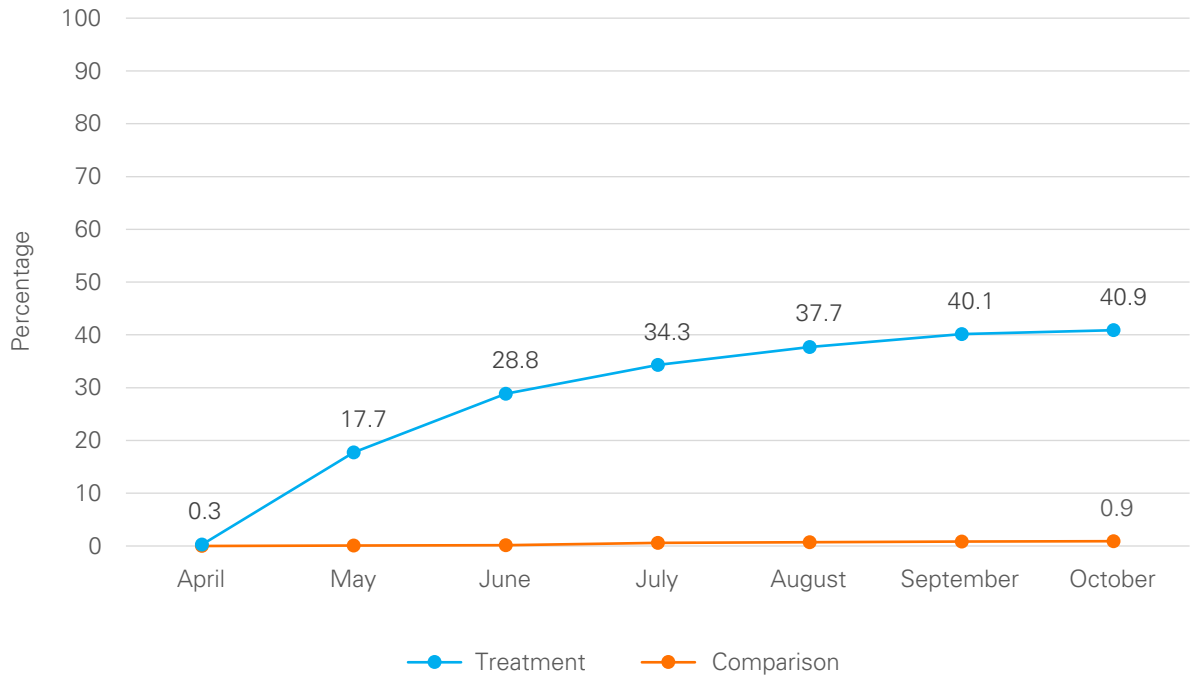
- The baseline study used administrative programme data to examine the enrolment rate in the Family Package and the level of the transfer value in comparison to household consumption.
- By October 2024, about 41 per cent of the study sample was enrolled in the Family Package, according to the administrative data. This rate is much lower than the national level enrolment rate of 90 per cent, likely due to the focus of the evaluation on households that had not yet enrolled in the programme before the baseline.
- The average transfer value as a percentage of household baseline consumption is 4.6 per cent (median 3.6 per cent), and the transfer represents less than 10 per cent of household consumption for more than 90 per cent of the households that started receiving benefits. However, these calculations do not yet take into account top-ups related to scholarships or for pregnant women and infants, which could raise this average.

In this final section, we highlight a few implementation considerations with respect to the Family Package Programme. In particular, we highlight the enrolment rate in the study sample and the transfer value

Enrolment in the Family Package

We obtained administrative data from the implementing agency, NSAF, with information on the enrolment (date) of households in the baseline sample. Since the sample was selected based on being not yet enrolled as of May 2024, these data help to verify whether or not the participating households were indeed not yet enrolled, providing a cleaner baseline for identifying impacts at a later stage. The administrative data show enrolments up to the end of October 2024. According to these data, 500 households from the baseline sample were enrolled, with 489 IDPoor households (41 per cent) and 11 at-risk households. This enrolment rate shows a large difference from the overall national enrolment rate of about 90 per cent. This difference is likely due to the selection of households in the evaluation sample excluding households that were already enrolled in April 2024. Among the enrolled households in the sample, 488 had received a payment in the September 2024 payment cycle. Most of these households were enrolled in May, and the registration rate has been flattening since then (*see Figure 17.1*). A comparison of the interview date with the date when the households received their first payment shows that, except for three households, all households started to receive payments after they were interviewed for the baseline survey, hence not compromising the study design. For the purpose of the impact evaluation, it is essential that ideally all households assigned to the treatment group are enrolled in the Family Package and start receiving their benefits quickly. A low take-up rate of the programme among eligible beneficiaries can result in the inability of the study to identify impacts.

Figure 17.1: Share of evaluation sample enrolled in the Family Package, by month

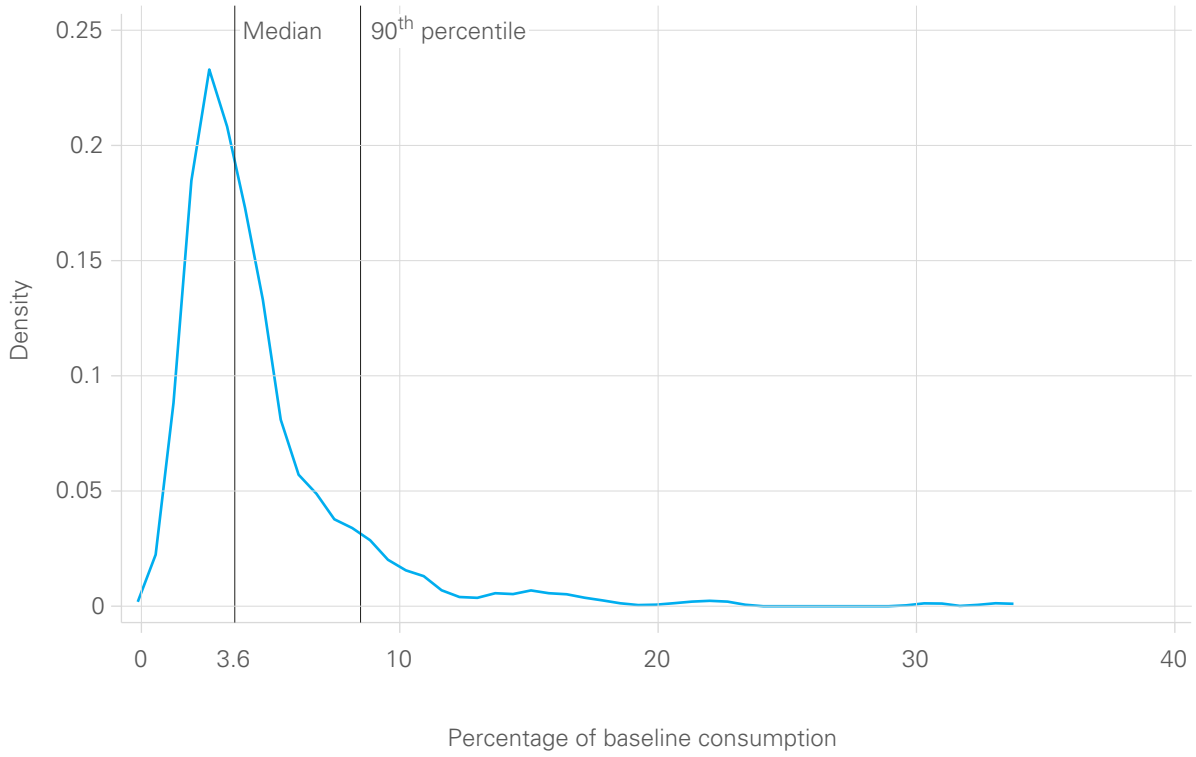


Source: Family Package administrative data.

Transfer value

An important consideration for every social protection programme is the size of the transfer in relation to the household budget. The administrative data from NSAF include the payment amount during the latest payment cycle (September 2024), which allows us to calculate the transfer value as a share of household baseline consumption for the 488 households that had started to receive Family Package benefits. Most of the households receive the base grant of KHR 34,000 (68.9 per cent) or the base grant plus the KHR 28,000 benefit for an elder or person with disability in the household (a total of KHR 62,000, 25.2 per cent). Comparing these payments with the total household consumption per month yields an average transfer size of less than 5 per cent (4.6 per cent), with a median of 3.6 per cent. For more than 90 per cent of households, the transfer represents less than 10 per cent of their household budget. This is shown in Figure 17.2, with the majority of the distribution on the left side of the graph. Research predominantly from African countries shows that programmes which transfer at least 20 per cent of pre-programme consumption often have a wider range of impacts than programmes which transfer less.[68] It must be noted, however, that the current administrative payment data might be incomplete, and households may be eligible for additional benefits such as those connected to pregnant women and young children, and scholarship payments, which would all drive the transfer share upwards. These benefits were not yet reflected in the administrative payment data. The sample characteristics showed that about 5 per cent of households had a pregnant woman, with another 14 per cent containing a child aged under 2 years, and about 74 per cent a school-aged child.

Figure 17.2: Distribution of the transfer share as a percentage of baseline household consumption



18. Conclusions

The National Social Assistance Family Package is a new chapter in the social protection system of Cambodia. By integrating several existing social assistance programmes, the Family Package aims to provide critical support to poor and vulnerable families across the life cycle. The implementation of the Family Package is being accompanied by a thorough quasi-experimental impact evaluation, which aims to provide evidence of programme impacts and guide future policy decisions. The households selected for the evaluation include those that are just below the poverty line based on their IDPoor score and receive benefits from the Family Package (treatment households), as well as those just above the poverty line who will not receive any benefits (comparison households). The baseline survey covered a total of 2,404 households, which were interviewed between May and June 2024, and it will serve as the basis for measuring the programme's impacts in the future.

The baseline findings offer valuable insights into household conditions before the implementation of the programme, covering key areas such as consumption, economic activities, health, education and women's decision-making. Household characteristics indicate a high level of vulnerability, with the majority of participants falling below the poverty line exhibiting low levels of consumption. Food and nutrition security in Cambodia, especially for IDPoor households, remains a significant challenge. Households are using negative coping strategies, depleting their resources and leaving them vulnerable to falling into poverty. Women are more affected by severe coping strategies, and there are challenges in consuming pulses and dairy products. Both adults and children suffer from limited dietary diversity.

The findings also reveal that households rely heavily on transfers and remittances, with low levels of non-farm enterprises, highlighting the need for diversified income sources. Additionally, financial inclusion remains low, with high reliance on informal sources for savings and borrowing, indicating a need for improved financial access and savings mechanisms. The baseline study also highlights the need for improved school enrolment among adolescents and increased access to affordable public health services. While women's participation in decision-making is generally high, there are imbalances between the treatment and comparison groups.

Despite a national enrolment rate of over 90 per cent, the baseline study found that about 41 per cent of the eligible study sample was enrolled in the Family Package by October 2024. The average transfer value represents 4.6 per cent of household baseline consumption. However, this does not include additional top-ups for scholarships or for pregnant women and infants, which could raise the average transfer value.

The baseline study involved conducting over 360 balance tests comparing the treatment and comparison groups, with about 9 per cent of these tests yielding significant differences, particularly in the areas of vaccination coverage, health care-seeking behaviour, disabilities and women's decision-making. Not counting indicators related to IDPoor status, such as the possession of an IDPoor card, reduced the share of significant differences to 7 per cent. This suggests that, for the majority of the evaluation domains, the study design effectively created similar treatment and comparison groups, laying the foundation for a rigorous impact assessment in the future.

This report concludes by providing recommendations with respect to some of the challenges in terms of programme implementation and living conditions among the study population.

18.1 Recommendations

Programmatic recommendations:

- Strengthen efforts to enrol the remaining households in the Family Package. Attempt to understand the barriers affecting enrolment among households that have not yet been enrolled and provide dedicated assistance during the enrolment process. Conduct monitoring visits to communities with low registration rates and collaborate with local implementers to eliminate enrolment obstacles.
- Closely monitor the adequacy of the benefits in relation to household budgets and ensure it maintains the real value by indexing the amount in line with inflation. Conduct additional analysis on transfer values once the scholarship programme has been integrated into the Family Package and full information on transfer receipts is available.
- Utilize the Family Package infrastructure for shock-responsive social assistance through anticipatory and reactive elements. Households in the study face a wide variety of shocks, making them vulnerable to falling into poverty. Shock-responsive elements could empower households to cope with these shocks.
- Start planning for a follow-up round of data collection, once sufficient time has passed and a high share of the sample has enrolled. This will allow for the monitoring of progress and impacts on the key outcome areas of the Family Package.

Recommendations with a focus on complementary actions to address challenges in households' socioeconomic conditions:

- Continue to invest in complementary nutrition services to enhance infant and young child feeding practices and knowledge, in order to address gaps in breastfeeding practices and dietary diversity.
- Invest in social and behaviour change for healthy diets, in order to promote increased consumption of diverse nutrient-dense foods and reduced consumption of ultra-processed snacks and drinks.
- Promote diversification of income sources through vocational training and non-farm business development to further build resilience among households.
- Facilitate access to formal financial services, including mobile money services. Mobile phone ownership is high, suggesting potential for growth in this area. Beneficiaries receive their benefits in a Wing account, which could expedite access to formal financial inclusion.
- Vulnerability to illnesses is high in the study sample, and most individuals rely on private providers for health care, resulting in high levels of out-of-pocket health expenditure. The use of (free health care from) public health care providers should be further promoted through the IDPoor system and the Health Equity Fund, along with strategic private sector engagement in access to essential health services and medicines, in line with the Roadmap Towards Universal Health Coverage in Cambodia 2024–2035.
- Similarly, vulnerable groups, including the elderly and people with disabilities, face a higher burden of illness and significant challenges that limit their full participation in society. These groups need to be properly supported in line with national policies such as the National Disability Strategic Plan 2024–2028.

Abbreviations

ADB	Asian Development Bank
ANC	antenatal care
BCG	Bacillus Calmette–Guérin
CAPI	Computer Assisted Personal Interviewing
CBF	continued breastfeeding
CDHS	Cambodia Demographic and Health Survey
CPI	Consumer Price Index
CSES	Cambodia Socio-Economic Survey
CT-PWYC	Cash Transfer for Pregnant Women and Young Children under 2
DDS	Dietary Diversity Score
DTP	diphtheria-tetanus-pertussis
EBF	exclusive breastfeeding
EBF2D	exclusive breastfeeding for first 2 days after birth
EFF	egg and/or flesh food consumption
FAO	Food and Agriculture Organization of the United Nations
FIES	Food Insecurity Experience Scale
GDP	gross domestic product
GS-NSPC	General Secretariat – National Social Protection Council
HDDS	Household Dietary Diversity Score
ICC	intra-cluster correlation
IPV	inactivated polio vaccine
KHR	Khmer Riel
LCS-EN	Livelihood Coping Strategies – Essential Needs
LSMS	Living Standards Measurement Survey
MAD	minimum acceptable diet
MAFF	Ministry of Agriculture, Forestry and Fisheries
MDD	minimum dietary diversity
MDD-W	minimum dietary diversity for women
MDE	minimum detectable effect
MFI	microfinance institution
MixMF	mixed milk feeding
MMF	minimum meal frequency
MoEYS	Ministry of Education, Youth and Sports
MoP	Ministry of Planning
MSME	micro, small and medium enterprise
NCD	non-communicable disease
NECHR	National Ethics Committee for Health Research
NFE	non-farm enterprise
NGO	non-governmental organization
NIS	National Institute of Statistics
NSAF	National Social Assistance Fund
NSPPF	National Social Protection Policy Framework 2016–2025
NSSF	National Social Security Fund
OOP	out-of-pocket
PAC	priority access card

PCV	pneumococcal conjugate vaccine
PNC	postnatal care
pp	percentage points
PPP	purchasing power parity
RCI	Resilience Capacity Index
rCSI	reduced Coping Strategies Index
RGC	Royal Government of Cambodia
RIMA	Resilience Index Measurement and Analysis
SMD	standardized mean difference
SwB	sweet beverage consumption
TLU	tropical livestock unit
UFC	unhealthy food consumption
UNDP	United Nations Development Programme
UNPRPD	United Nations Partnership on the Rights of Persons with Disabilities
USD	United States Dollar
WFP	World Food Programme
WG-SS	Washington Group Short Set questions on Functioning

Endnotes

1 Karamba, Wendy, Kimsun Tong, and Isabelle Salcher, *Cambodia Poverty Assessment: Toward a more inclusive and resilient Cambodia*, World Bank, Washington, D.C., 2022.

2 Royal Government of Cambodia, *National Social Protection Policy Framework 2016–2025*, Royal Government of Cambodia, Phnom Penh, 2017, p. ix.

3 Angkor Research and Consulting, *Survey Report: Socioeconomic impacts of Covid-19 Cash Transfer Programme*, United Nations Development Programme, Phnom Penh, 2021.

4 Narith, Chan, et al., 'Developing the Family Package in Cambodia: The realization of integrated social protection', ch. 7 in *Social Protection in East Asia and Pacific: From evidence to action for children. Lessons from strengthening social protection systems*, edited by Andrea Rossi and Ruben Villanueva, United Nations Children's Fund Regional Office for East Asia and Pacific, Bangkok, 2023, pp. 106–116.

5 Karamba et al., *Cambodia Poverty Assessment*.

6 The scholarship programme is currently run by the Ministry of Education, Youth and Sport, and will be integrated into the Family Package during the current academic year (2025).

7 Ministry of Planning, *Manual for the Identification of Poor Households Procedure*, Ministry of Planning, General Directorate of Planning, Department for Identification of Poor Households, Phnom Penh, 2022.

8 The proposed benefit values are benchmarked as a percentage of the different poverty lines in Cambodia. During the COVID-19 response, the monthly benefit received (for both the elderly and persons with disabilities) in urban Phnom Penh was KHR 40,000 for IDPoor 1 and KHR 28,000 for IDPoor 2. The new flat rate benefit value (i.e., 34,000 KHR) is calculated as the average of the two benefit levels for urban Phnom Penh.

9 Package Programme for June 2024 and Cash Disbursement for July 2024', News note, 2 August 2024, <https://nsaf.gov.kh/លទ្ធផលនៃការអនុវត្តកម្ម-2/>, accessed 21 February 2025.

10 Seidenfeld David, et al., 'Intraclass Correlations Values in International Development: Evidence across commonly studied domains in sub-Saharan Africa', *Evaluation Review*, vol. 47, no. 5, 2 February 2023, pp. 786–819, <https://doi.org/10.1177/0193841X231154714>.

11 Schochet, Peter Z., 'Statistical Power for Regression Discontinuity Designs in Education Evaluations', *Journal of Educational and Behavioral Statistics*, vol. 34, no. 2, 1 June 2009, pp. 238–266, <https://doi.org/10.3102/1076998609332748>.

12 Seidenfeld et al., 'Intraclass Correlations Values'.

13 Local authorities have some freedom to apply special circumstances in the identification of poor households and assign an IDPoor status to a household with a score above the threshold, which would explain the majority of these cases.

14 The thresholds for small and large villages were chosen iteratively by examining the results of the sampling using different restriction criteria. The threshold of having a minimum of 10 and a maximum of 100 IDPoor households was found to provide a reasonable allocation of the sample across provinces, yet within a narrow bandwidth around the poverty cut-off.

15 National Institute of Statistics, *Report of Cambodia Socio-Economic Survey 2021*, NIS, Ministry of Planning, Phnom Penh, December 2022.

16 Ibid.

17 The CSES 2021/22 reports a total of 872,527 people with disabilities nationwide and a total number of 3,870,000 households. Likewise, the number of people aged 60 or above is approximately 1,563,000 (Ibid.).

18 Ibid.

19 It could be that at the time of the baseline survey, households had not yet received their physical IDPoor card and were waiting for the authorities to deliver it to them. This could also explain the discrepancy in the share of households in the treatment group who are identified as IDPoor in the IDPoor database, but who reported that they did not have an IDPoor card. In cases where a household possessed both an IDPoor card and an at-risk card, one of the two should automatically become invalid.

20 Karamba et al., *Cambodia Poverty Assessment; Report of Cambodia Socio-Economic Survey*.

21 Food and Agriculture Organization of the United Nations, *RIMA-II: Resilience Index Measurement and Analysis—II*, FAO, Rome, 2016.

22 Root mean square error of approximation (RMSEA) – 0.02; comparative fit index (CFI) – 0.995; Tucker–Lewis Index (TLI) – 0.985.

23 *Report of Cambodia Socio-Economic Survey*.

24 Ibid.

25 Bissinger, Jared, *Understanding the Paths to Formalization in Cambodia: An integrated vision*, United Nations Development Programme, Phnom Penh, December 2023.

26 Hasanbasri, Ardina, et al., *LSMS+ Program in Cambodia: Findings from individual-level data collection on labor and asset ownership*, World Bank, Washington, D.C., 2021.

27 National Institute of Statistics, Ministry of Health, and ICF, *Cambodia Demographic and Health Survey 2021–22*, NIS, MoH, and ICF, Phnom Penh and Rockville, Md., March 2023.

28 National Institute of Statistics and Ministry of Agriculture, Forestry and Fisheries, *Cambodia Agriculture Survey 2021: Report 2—crop production*, NIS and MAFF, Phnom Penh, 2022.

29 The conversion factor to calculate TLUs is as follows: cows 0.7 TLU; pig 0.2 TLU; chicken 0.01 TLU; duck 0.01 TLU.

30 *Cambodia Demographic and Health Survey*.

31 Asian Development Bank, *Cambodia Agriculture, Natural Resources, and Rural Development Sector Assessment, Strategy, and Road Map*, ADB, Manila, July 2021.

32 Global Diet Quality Project, 'Cambodia', <www.dietquality.org/countries/khm>, accessed 21 February 2025.

33 Note that CDHS 2021/22 does not directly report the proportion of all children aged 0–23 months who are currently breastfed. The value of 59% was calculated from the reported number of breastfed and non-breastfed children in the CDHS sample.

34 Note that this includes 14 children for whom there was an error in the survey tool's skip logic related to a question confirming that the child had not been fed any soft, semi-solid or soft foods (based on their caregiver providing 'no' responses to all the questions about specific food items). Caregivers of these 14 children answered 'no' to all questions about their child's consumption of specific liquids and foods, so it is very likely that they would also have answered 'no' to the confirmation question, although this is assumed.

35 Percentage of infants aged 0–5 months who were fed formula and/or animal milk in addition to breast milk during the previous day and night.

36 Defined as breastfed: at least the MDD and MMF for their age. Defined as non-breastfed: at least the MDD and MMF for their age, as well as at least two milk feeds.

37 Defined as consumption of five of eight food groups during the previous day/night: breast milk, grains/roots/tubers/plantains, pulses/nuts/seeds, dairy products, flesh foods, eggs, vitamin A-rich fruits/vegetables, other fruits/vegetables.

38 Defined as at least one of: meat, organ meat, fish, poultry, eggs.

39 Defined as breastfed, 6–8 months: two feeds. Defined as breastfed, 9–23 months: three feeds. Defined as non-breastfed, 6–23 months: four feeds with at least one feed of solid, semi-solid or soft food.

40 Defined as at least one of: baked/grain-based sweets, other sweets, packaged ultra-processed salty snacks, instant noodles, deep-fried food.

41 Defined as at least one of: sweetened milk drinks, soft/energy drinks, fruit juice/drinks, sweetened tea/coffee/herbal drinks.

42 Defined as proportion of women consuming at least 5 out of 10 food groups, i.e., starches, pulses, nuts and seeds, dairy, flesh foods (meat, poultry and fish), eggs, dark green vegetables, other vitamin A-rich fruits and vegetables, other vegetables and other fruits.

43 Adults here refers to any individual who is at least 15 years of age, in line with the definition used in the Global Diet Quality Project ('Cambodia') for comparison purposes.

44 Ibid.

45 Food and Agriculture Organization of the United Nations, *Minimum Dietary Diversity for Women: An updated guide to measurement – from collection to action*, FAO, Rome, 2021.

46 *Cambodia Demographic and Health Survey*.

47 Food and Agriculture Organization of the United Nations, et al., *The State of Food Security and Nutrition in the World 2024: Financing to end hunger, food insecurity and malnutrition in all its forms*, FAO, Rome, 2024.

48 These short-term strategies are used to calculate the rCSI, with a higher weight given to option (1.c) in Table 8.5.

49 Nguyen, Thanh-Tung, Trung Thanh Nguyen, and Ulrike Grote, 'Multiple Shocks and Households' Choice of Coping Strategies in Rural Cambodia', *Ecological Economics*, vol. 167, January 2020, art. 106442, <https://doi.org/10.1016/j.ecolecon.2019.106442>.

50 World Bank, *Resilient Development: A strategy to diversify Cambodia's growth model. Cambodia Country Economic Memorandum*, World Bank, Phnom Penh, December 2021.

51 While the sampling took into account only non-enrolled Family Package households, it may be that between the sampling and the field work, households were enrolled in the Family Package. Alternatively, it may be that households misunderstood the question on the Family Package and confused it with other types of social assistance. More information on enrolment based on administrative programme data is provided in Section 17.

52 This other government assistance could be related to benefits from the cash transfer in response to floods and inflation, for which the latest benefit was delivered in August 2023, within the 12-month window of the baseline survey.

53 Karamba et al., *Cambodia Poverty Assessment*.

54 Ibid.

55 World Bank, *From Recovery to Reform: Cambodia economic update*, World Bank, n.p., November 2023.

56 Karamba et al., *Cambodia Poverty Assessment*.

57 *Cambodia Demographic and Health Survey*.

58 *Report of Cambodia Socio-Economic Survey*.

59 Ministry of Education, Youth and Sport, *National Education Congress Report (2022/2023)*, MoEYS, Phnom Penh, 2024.

60 Ibid.

61 Ibid.

62 *Cambodia Demographic and Health Survey*.

63 Ibid.

64 Ibid.

65 Washington Group on Disability Statistics, 'Analytic Guidelines: Creating disability identifiers using the Washington Group Short Set on Functioning (WG-SS) Stata syntax', Washington Group on Disability Statistics, n.p., 12 May 2020.

66 United Nations Partnership on the Rights of Persons with Disabilities, *Situational Analysis of the Rights of Persons with Disabilities in Cambodia*, UNPRPD, n.p., November 2022.

67 World Bank, *Cambodia Public Finance Review: From spending more to spending better*, World Bank, Washington, D.C., 2023.

68 Tirivayi, Nyasha, Jennifer Waidler, and Frank Otchere, 'Cash Transfers: Past, present and future. Evidence and lessons from the Transfer Project', ch. 2 in *Social Protection in East Asia and Pacific: From evidence to action for children. Lessons from strengthening social protection systems*, edited by Andrea Rossi and Ruben Villanueva, United Nations Children's Fund Regional Office for East Asia and Pacific, Bangkok, 2023, pp. 10–28.

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