

**Randomized Evaluation of Voucher Interventions for
Value and Effectiveness (REVIVE) in Philippines**

**Study protocol
February 2026**

1. Background

The Department of Social Welfare and Development (DSWD) in Philippines is committed to addressing hunger, food insecurity, and malnutrition through evidence-based social protection programs. Technical Assistance (TA) project of the Asian Development Bank (ADB)- TA 10206 has provided rapid and on-demand support to the DSWD since December 2023 to address these challenges, including through pilot studies, REFUEL project preparation and due diligence, capacity building, and impact evaluations. The TA will also support diagnostics and analysis for the REVIVE pilot.

The REVIVE is a pilot and special study intended to test the impact of different voucher amounts together with enhancements in SBCC on household food security, hunger, and nutrition. From December 2023 – July 2024, a pilot supported under TA 10206 was implemented providing a 3,000-peso voucher together with monthly nutrition-sensitive social and behavior change communication (SBCC) sessions on similar household and child level outcomes. Vouchers were structured such that 50% could be utilized for carbohydrates and oils, 30% for proteins, and 20% for fruits and vegetables. Despite positive impacts from a rigorous evaluation, the results indicated that impacts could be enhanced with certain design modifications and further testing.

For example, the net value of food acquired by the household responded strongly for proteins, fruits and vegetables, but weakly for carbohydrates and oils, which were already being consumed at nearly recommended levels. While there was a statistically significant reduction in reported hunger and food insecurity, the magnitude of reductions was relatively small, particularly given the average household size of 7, which reduced the per capita value of vouchers. Subsequent calculations showed that the gap in food expenditure between the cost of a healthy diet and expenditures of households in the bottom income decile is much more than the 3,000-peso voucher amount. Analysis revealed that the gap is between 5000 and 8000 pesos monthly per household.

Results and recommendations from the first pilot offered several important lessons and recommendations which have informed the design of REVIVE including the need to: i) restructure the voucher allocations to 10% for carbohydrates and oils, 45% for proteins, and 45% for fruits and vegetables; ii) allow continuous redemptions, rather than monthly ones, given a lack of refrigeration among beneficiaries and inability to store perishable products; iii) pilot test voucher amounts of 5000 or 8000 pesos per household per month; and iv) enhance the SBCC to improve nutrition knowledge effects.

2. Objectives

The **overall objective** of the study is to evaluate the impact of revised food voucher design features—including voucher amount, food group allocation and enhanced Social and Behavior Change Communication (SBCC)—on household food security, hunger, dietary quality, nutrient intakes and nutrition outcomes among low-income households in the Philippines.

The **specific objectives** of the proposed study are as follows:

To estimate the impact of the revised PHP 3,000 voucher (10:45:45 allocation; continuous redemption) relative to no voucher on:

- Household food expenditure and food acquisition patterns
- Household and individual dietary intake
- Hunger and food insecurity
- Nutrition knowledge

To compare the effects of varying voucher amounts (PHP 3,000 vs. PHP 5,000 vs. PHP 8,000) on:

- Quantity and quality of food purchased and consumed
- Dietary diversity and nutrient adequacy
- Hunger and food insecurity
- Nutrition knowledge

To assess whether higher voucher values (PhP 5,000 and PhP 8,000) generate proportionally larger improvements in dietary quality and nutrition outcomes, particularly among large households with high dependency ratios.

3. Methodology

3.1. Study design

This is a cluster-randomized controlled trial (cRCT) with cross-randomized SBCC enhancement. The REVIVE study includes three main voucher arms: 1) a 3000-peso monthly voucher; 2) a 5000-peso monthly voucher; 3) an 8000-peso monthly voucher; and 4) a control with no voucher. The voucher was accompanied by 6 SBCC sessions, with attendance obligatory for voucher recipients before each redemption. DSWD collaborated with WFP for the development of nutrition education modules, and their implementation was facilitated by local-level trained government staff. The sessions were designed to equip households with critical knowledge about maternal, infant, and household nutrition, and they focused on the use of the Go, Grow, Glow pedagogy, which teaches about carbohydrates, proteins, and fruits and vegetables, respectively. Additionally, sessions cover safe water, sanitation, and hygiene (WASH) practices to foster an environment conducive to better health outcomes and reduced illness.

3.2. Study area

The study is implemented across five provinces—Isabela, Camarines Sur, Manila, Surigao del Norte, and Maguindanao del Norte—with one municipality per province. These were initially selected by DSWD to form a sample of the poor in the country in terms of regional diversity, rural/urban status, and livelihood situation. The sample was split evenly between Manila and the other provinces, so as to be able to understand effects in both highly urbanized and rural settings. Half the study sample is in Tondo, whereas half is in the other 4 regions under more rural conditions. Using global positioning system (GPS) coordinates from the baseline survey, we created a total of 362 clusters, 242 in Tondo and 120 in the other provinces. The minimum size of each cluster was six households outside Tondo and four within Tondo.

Table 1. Sample size for treatment and control groups by locality

Province	Municipality	Control Group	Treatment Arm 1	Treatment Arm 2	Treatment Arm 3	Total Households
			(3000 PHP)	(5000 PHP)	(8000 PHP)	
Isabela	San Mariano	197	228	205	350	980
Camarines Sur	Garchitorena	68	111	87	115	381

Province	Municipality	Control Group	Treatment Arm 1	Treatment Arm 2	Treatment Arm 3	Total Households
			(3000 PHP)	(5000 PHP)	(8000 PHP)	
NCR (Manila)	Tondo I/II	702	748	764	690	2904
Surigao del Norte	Dapa	198	222	164	193	777
Maguindanao	Parang	93	55	67	63	278
Total		1258	1364	1287	1411	5320

Given the common practice of food sharing within communities, the study will also include a spill-over group to assess potential indirect effects of the intervention.

3.3. Study participants

Study participants: The study participants will be drawn from households enrolled in the REVIVE sample (Listahanan 3 eligible households) and residing within the selected study clusters. For the household survey, the primary respondent will be the designated meal planner. For the diet assessment component, eligible households must have at least one woman of reproductive age (15–49 years) with (or without) an index youngest child aged 0–59 months.

Inclusion and exclusion criteria: Inclusion criteria include enrollment in the REVIVE sample, residency in the study cluster, and provision of informed consent. Households will be excluded if a member has a severe illness preventing participation or if informed consent cannot be obtained.

3.4. Sample size

Sample size calculations account for the cluster design of the study and adjust for intra-cluster correlation. The analysis assumes a statistical power of 80% and a significance level (alpha) of 0.05. The study is powered to detect meaningful differences in key outcomes such as food security, hunger, dietary quality and nutrient intakes. This resulted in a sample size of 5320 households in total.

3.5. Study outcomes

The study will collect data on a wide range of nutrition and health outcomes on household meal planner, WRA and their children <5y.

Primary outcomes

- **Nutrition knowledge:** Nutrition knowledge will be assessed through a structured questionnaire administered to the primary caregiver or food preparer in each household. The instrument includes multiple-choice, true/false, and scenario-based items measuring understanding of food groups and their nutritional functions, dietary diversity and balanced meal composition, key micronutrient sources (e.g., iron- and vitamin-rich foods), maternal and child feeding practices, and awareness of the structured voucher allocation rules. Items are aligned with the content of the standard and enhanced SBCC sessions to ensure relevance. A composite nutrition knowledge index will be constructed by summing correct responses and standardizing scores for analysis. Subdomain scores (e.g., dietary diversity knowledge, micronutrient knowledge, child feeding knowledge) will also be generated to assess which dimensions of knowledge were most responsive to the intervention.
- **Energy, macro- and micro-nutrient intake:** These outcomes will be assessed using data collected through 24h dietary recall. Using the dietary intake data, we will estimate the intake of energy, carbohydrate, protein, fat, and eleven micronutrients: vitamin A, thiamin, riboflavin, niacin, vitamin B-6, folate, vitamin B-12, vitamin C, calcium, iron, and zinc. Except for calcium, the probability of adequacy for each micronutrient and each individual in the sample will be calculated through the probability approach. Probabilities will be averaged across the 11 micronutrients to calculate the mean probability of adequacy, a summary indicator of diet quality.
- **Healthiness of the diet:** We will describe the individual diet through consumption of specific food groups, considered healthy and unhealthy. A 24h recall will be used to assess intake of fruits and vegetables, sweet and sugared beverages, ultra-processed foods, and fried snack foods consumption, among others. Intake will be assessed in terms of frequency and quantity (g), number of servings per day, and contribution to overall energy intake. The healthiness of the diet of WRA and children under 5y will be assessed as follows: (1) percentage consuming the ten food groups as defined by the Minimum Dietary Diversity for Women; (2) the Global Dietary Quality Score – GDQS. The GDQS has two subdimensions: the nutrient adequacy subdimension and the NCD risk subdimension. Weights to calculate the score are based on the quantity consumed. The GDQS has been validated for use in nonpregnant and nonlactating women. In addition, we will calculate the Global Diet Recommendation (GDR) score which will be based on data collected through the Diet Quality-Questionnaire (DQQ). Infant and young child feeding practice indicators will also be estimated for children under 5 years.

Secondary outcomes

- **Household Food Consumption Score (FCS)** is used to assess household dietary quality and food consumption patterns over a seven-day recall period. The FCS is a composite indicator that integrates three dimensions of food consumption—dietary diversity, frequency of consumption, and the nutritional value of different food groups.

During the survey, respondents report how many days in the past seven they consumed items from the standardized food groups. Each food group's reported frequency (capped at a maximum of seven days) is multiplied by a pre-assigned weight reflecting its relative nutritional importance. The weighted scores for all food groups will be then summed to generate the household's overall FCS.

- **Hunger and food insecurity:** Food insecurity and hunger were measured using a structured household questionnaire covering experiences over the previous four weeks, adapted from internationally validated food insecurity experience scales. Respondents were asked whether, due to lack of money or other resources, their household: (i) worried about not having enough food; (ii) was unable to eat healthy and nutritious food; (iii) ate only a limited variety of foods; (iv) skipped meals; (v) ate less than they felt they should; (vi) ran out of food; (vii) went to sleep hungry; or (viii) went a whole day and night without eating. For each occurrence-based question, respondents were further asked about the frequency of the experience during the recall period. These items capture increasing severity of food insecurity, from anxiety about food access to extreme deprivation, and were used to construct categorical indicators of food insecurity severity as well as continuous indices for impact analysis.
- **Nutritional and health outcomes:** For children, we will calculate the height-for-age z-scores (HAZ), weight-for-age z-scores (WAZ) and weight-for-height z-scores (WHZ) using the WHO growth standard. We will use the WHO cut-offs to interpret children's body weight, i.e., underweight, stunting, wasting. For WRA, BMI will be used as one of the markers of nutritional status. BMI will be calculated as $\text{weight}/\text{height}^2$. We will use the WHO cut-offs, i.e., underweight as BMI < 18.5, overweight as BMI 25.0 to 29.9, and obese as BMI ≥ 30.0 . We will also use the cut-offs for Asian populations.

Child health outcomes were assessed using a two-week recall period, during which the primary caregiver reported whether each eligible household member experienced any of the following symptoms: fever, cough/cold, fast or short breathing, diarrhea, fatigue, nausea or vomiting, serious underweight, or a diagnosed micronutrient deficiency (e.g., vitamin A and/or iron deficiency).

- **Household Food and Non-Food Expenditures**
 - **Food expenditure** will be collected using a four-week recall period. Respondents are asked to report the total value of all food consumed by the household during the past four weeks, including food purchased in cash or on credit, received as gifts or transfers, obtained from own production, and redeemed through the Walang Gutom food voucher. The module cover food consumed by all household members and non-members who regularly shared meals with the household (defined as individuals consuming at least eight lunches or dinners during the reference period; breakfast and snacks were excluded). Food expenditure estimates therefore reflect total household food consumption, regardless of source.
 - **Non-food expenditures** will be collected using a six-month recall period to estimate average monthly spending. Respondents report typical monthly expenditures (in Philippine pesos) across major categories, including education, health care, utilities (electricity and water), rent (actual or imputed), fuel (including LPG), transportation, transfers and gifts, social events (festivals, funerals, weddings), communication expenses (internet and mobile load), personal hygiene products, leisure and entertainment, gambling, clothing and toys, alcohol, tobacco, durable goods and furniture, debt payments, and other miscellaneous expenses not captured elsewhere.

Reported six-month expenditures will be averaged to generate standardized monthly non-food expenditure measures.

3.6. Additional variables

- **Demographic characteristics** (all household members): age, sex, schooling and employment for all household members.
- **Crop Gardening and Foraging:** Households will be asked whether they maintain a personal garden or access a shared or public garden to cultivate or forage vegetables and fruits for household consumption. For households reporting engagement in gardening or foraging activities, respondents will be asked to list the specific crops cultivated or gathered for home use. These data will allow assessment of own-production as a supplementary source of food and its potential contribution to household dietary diversity and food security.
- **Entrepreneurial / Own-Account Activities:** Information on household entrepreneurial or own-account activities will be collected to capture income-generating activities undertaken by the respondent or any household member during the reference period (April 2025 to April 2026). Respondents will be asked about engagement in crop farming, gardening, livestock and poultry raising, fishing, and food-related enterprises.

The survey will also collect information on non-agricultural entrepreneurial or own-account activities undertaken by any household member during the reference period (April 2025 to April 2026). These activities include wholesale and retail trade, manufacturing or processing, transportation and storage services, and other entrepreneurial activities not previously captured.

- **Participation in Other Support Programs**
Information will be collected on household participation in government and private social protection, insurance, and assistance programs. For each listed program, respondents will be asked whether they or any household member have ever been a member or beneficiary and whether they are currently enrolled. If the household reports current participation or receipt of benefits, respondents will be asked to report the total amount received over the past 12 months (in Philippine pesos), where applicable.
Programs covered include contributory social insurance schemes (e.g., GSIS, SSS), health insurance programs (PhilHealth—individually paid/employed and indigent program, and private health insurance or HMOs), private insurance companies, public employment programs (Cash-for-Work/Food-for-Work), conditional and unconditional cash transfer programs (including Pantawid Pamilyang Pilipino Program [4Ps], Walang Gutom, and other cash transfers), agricultural support programs such as the National Urban and Peri-Urban Agriculture Program (NUPAP), Social Pension, and Assistance to Individuals in Crisis Situations (AICS).
- **Income and other receipts:** Information on household income and other receipts will be collected for the period April 2025 to April 2026. Respondents will be asked whether they or any household member received income from various sources and, if so, the total amount received in Philippine pesos. Categories include cash assistance and remittances (from relatives abroad or domestically, friends, and others), pensions and retirement benefits, rental income (from land, housing, commercial space, or share of produce), interest and dividends (from bank deposits, loans, or investments), and other receipts such as proceeds from the sale of property, loans obtained, repayment of money lent, withdrawal of savings or business capital, gambling or lottery winnings, inheritance, prizes, and other miscellaneous sources.

3.6. Data collection households and individuals

- **Household survey:** household-level data will be collected using a structured and pretested questionnaire which. The household survey will begin with a roster of all household members to establish composition and basic demographic characteristics. The meal planner will subsequently respond to modules related to:
 - Nutrition knowledge
 - Household food consumption patterns over specified recall periods;
 - Food and non-food expenditures;
 - Household experiences related to food access;
 - Participation in social protection and assistance programs;
 - Income sources and other receipts during the reference period;
 - Engagement in gardening, foraging, and entrepreneurial activities.
 - Household assets

Where relevant, recall periods will follow those defined in the outcome descriptions (e.g., seven-day, four-week, six-month, or 12-month reference periods), and enumerators will use standardized probes to improve accuracy and completeness of responses.

- **Individual-Level Data Collection**

For women of reproductive age (WRA) and children under five years, we will conduct dietary intake assessment using 24-hour recall and anthropometric measurements.

- **24-hour dietary recall:** We will record food consumption for WRA and children under 5y through a quantitative 24-h recall administered by a trained surveyor. A second quantitative 24h recall will be conducted on 20% subsample, on 2 nonconsecutive weekdays within 1 or 2 weeks for the same mothers/children. The 24-h recall interview technique will be adapted from the multiple-pass method: 1) a list of meals, dishes, and all food items and beverages consumed will first be recorded and their place of preparation (at home or outside) will be noted; 2) interviewees will be asked for a full description of ingredients in all mixed dishes; 3) the method of preparation will be noted (e.g. time of cooking, whether the cooking receptacle is covered); 4) amounts (using household measures, direct weighing, or food models as appropriate) will be assessed separately for each ingredient and the portions eaten; 5) waste and non-consumed parts will be estimated; and 6) interviewees will systematically be prompted for specific foods of interest to the study, such as snacks and drinks. We will also collect data on where each food consumed was obtained. Catalogs of standard recipes will be created, one for dishes prepared and consumed at home and one for dishes consumed outside the home (data to be collected among restaurants and other food outlets, including street-food vendors). Finally, an algorithm will be developed to ensure that all days of the week are properly represented in the sample.
- **Anthropometric measurement:** Anthropometric data (height and weight) will be measured directly by trained field staff using standardized equipment and procedures. Measurements will follow internationally recognized protocols to ensure quality and comparability.

3.7. Use of computer-assisted personal interview (CAPI) software

Enumerators will administer the surveys using tablets equipped with computer-assisted personal interviewing (CAPI) software. Interviews will be conducted in the relevant local languages by enumerators trained to implement and accurately translate the questionnaire

from English into local dialects as needed. The survey instruments will be pre-tested through pilot exercises conducted during enumerator training to ensure clarity, accuracy, and cultural appropriateness.

2.8. Data management and data ownership

Data for the survey will be collected using CAPI questionnaires, on handheld tablets. At the end of each day, the entered data will be moved to a secure, password protected server, which will be accessible only by a small number of authorized data management staff.

Before any electronic datasets are created for analysis, all personally identifiable information (such as names and addresses) will be removed. A separate, securely stored file linking unique identifiers to personally identifiable information will be maintained by the IFPRI Principal Investigator. This file will be used solely for the purpose of tracking and re-contacting participants for any necessary follow-up surveys.

All paper documents will be stored in a secure, locked location accessible only to the Principal Investigator and authorized staff. Electronic data will be stored on secure, password-protected servers. At the conclusion of the study, all paper documents will be shredded, and electronic files containing personally identifiable information will be deleted in accordance with data retention policies.

Personally identifiable information (PII) will only be accessible to designated data management staff within the IFPRI research team, specifically those responsible for data cleaning, management, and secure storage. Access will be limited and controlled in accordance with data protection protocols. IFPRI research staff will be responsible for data management and analysis.

3. Ethical considerations

Ethical clearance will be obtained from the Institutional Review Board (IRB) of the International Food Policy Research Institute (IFPRI), Washington, DC, and from the Institutional Review Board of the University of the Philippines Los Baños. In addition, the study team and survey firm will inform local and regional health authorities and community representatives before starting the study activities. The following principles will guide the study:

- Voluntary and informed participation for household survey:** The study's objectives and procedures will be explained to all participants and head of household in her/his own language before the survey. All study participants reserve the right to refuse to participate in the study at any time. Each enumerator will be asked to read the consent statement in full form, slowly and in the language of the participant. They will then ask if the consent statement was understood and if there are any questions. Then the enumerator will ask the study participant if they would like to participate in the survey. At this time the study participant will be given the opportunity to refuse and understand that they may also be able to refuse to continue participation at any time during the interview/discussion with no repercussions to them or their family. Consent for minors who still live with their parents/guardian will be provided by the parents/legal guardian. The informed consent form will be signed (or a fingerprint collected in case of illiteracy)

by the participant and if necessary, by the guardian. One copy of informed consent will be given to the participant, one copy kept by the research team (consent forms can be found in attached appendix)

- **Risks and serious adverse events:** The level of risk anticipated for participants in the survey is negligible. There may be exceptional circumstances of minor emotional discomfort from responding to questions. However, these risks are not high, and no adverse effects are anticipated. Although we expect no adverse effects, we will have strict provisions and protocols to deal with any eventualities or circumstances that suggest adverse effects. First, enumerators will be trained extensively on the ethics, consent form and the right of participants to opt out of the interview at any time. Second, the survey tools will be pre-tested thoroughly and any questions found to have adverse effects will be removed. Finally, the senior research team will remain in close contact with the survey implementing team and ask to be notified of any adverse effects so that decisions can be made to address them immediately.
- **Anonymity and confidentiality:** Care will be taken to ensure anonymity of participants during data collection, data management, data analysis and result dissemination. Datasets will be made anonymous by using identification codes, rather than respondent names and addresses. Project staff and enumerators will be trained to maintain confidentiality while conducting interviews and not to share any information to any people except the project field coordinator.
- **Direct benefits:** No benefits are envisioned.
- **Indirect benefits:** The administration of the questionnaire modules and the results of the data analysis are unlikely to provide tangible benefits to any individual participant. However, the study is expected to generate broader benefits by producing rigorous evidence to inform stakeholders and policymakers in the Philippines and across Southeast Asia. The findings will support evidence-based improvements in social protection and nutrition programs, contributing to more effective strategies to reduce food insecurity, hunger, and malnutrition among vulnerable populations.
- **Adherence to law/regulations:** The research will be conducted under the Filipino laws and regulations related to research in human subjects.