



Institut de recherche
pour le développement



**PROPOSAL TO EVALUATE THE CASH TRANSFER PROGRAM,
SAVANES AND KARA REGIONS, TOGO**

TECHNICAL & FINANCIAL PROPOSAL

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I. Overview

This proposal to undertake an evaluation of the Cash Transfers Program, Savanes and Kara regions, in Togo, is led by the Institut de Recherche pour le Développement (IRD). IRD is joined in this bid by the International Food Policy Research Institute (IFPRI). The core team undertaking this work will be comprised of Yves Martin-Prével and Mathilde Savy (epidemiologists/nutritionists, who will serve as Team co-Leaders), Agnès Le Port and Rahul Rawat (epidemiologists/nutritionists who will serve as Deputy Team Leaders), Sonia Fortin (Biostatistician), Yves Kameli (Logistician), a PhD student and a research assistant (yet to be identified). Marie Ruel, the Division Director at the Poverty Health and Nutrition Division at IFPRI will serve as a technical advisor on this project. The staff listed above also has experience in conducting qualitative research. The comparative advantages our team brings to this evaluation include:

- Extensive experience conducting impact evaluations of social safety nets, including cash, vouchers and food transfer programs in Africa and other regions of the developing world.
- Experience working in multi-disciplinary teams and using mixed-methods in large scale program evaluations across a range of developing countries.
- Significant experience designing and implementing quantitative surveys and collecting detailed household and individual data on food, nutrition, gender and economics in West Africa.
- Institutional presence in West Africa, through regional offices of both IRD and IFPRI in Dakar, Senegal. Additionally, senior researchers from both organizations (Mathilde Savy, Agnès Le Port and Rahul Rawat (starting in January 2014)) are based in Dakar.
- Demonstrated management ability to undertake and execute complex multi-year projects.
- Policy communications experience. Alongside research and capacity strengthening, *policy communication* is a key pillar of both IFPRI's and IRD's institutional strategy. The Communications Division at IFPRI, for instance, is responsible for communicating directly with IFPRI's audiences using multiple, customized forms of outreach, in close cooperation with IFPRI researchers. IFPRI and IRD utilize various mainstream and innovative methods of disseminating the knowledge created through their research in the form of communications and capacity strengthening. In addition to peer-reviewed journal articles, IFPRI and IRD also generate a variety of knowledge products targeted to academics, governments, policy makers, NGOs, and donors.

The next sections of the proposal provide the following information: 1) institutional capacity of IRD and IFPRI and brief summary of experience in conducting large-scale impact evaluations of health, nutrition, and social safety net programs; 2) a proposed approach to the overall evaluation of the Togo cash transfer program, addressing each of the 4 primary evaluation objectives; 3) a workplan and timeline; 4) a list of core IRD and IFPRI staff involved in the project and their level of effort; 5) a budget and 6) short CVs of core team members.

II. Description of Institutions

2.1. Institut de Recherche pour le Développement

The IRD is a French research organisation that, together with its southern partners, addresses international development issues. To improve sanitary conditions, understanding the evolution of society, preserving the environment and resources are the pillars of its work with a view to achieving the Millennium Development Goals. As a French science and technology establishment, the IRD is under the joint supervision of the Ministries of Research and Foreign Affairs. It operates internationally from its headquarters in Marseille, and two metropolitan centres of Montpellier and Bondy.

Thanks to its collaborative activities in research, education and innovation, it works in more than fifty countries in Africa, around the Mediterranean, in Asia, Latin America and overseas. Based on interdisciplinarity, the projects conducted jointly handle issues crucial for the South: tropical diseases and civilisation, relationships between health and environment, climate change, water resources, nutrition and food security, tropical and Mediterranean ecosystems, natural hazards, poverty, vulnerability and social inequality, migration, changes in the labour market... Three major domains, each investigated by a specific scientific department (health, society, environment and natural resources), constitute priority issues for the IRD and will be tackled by the IRD on its quest to contribute to the achievement of the Millennium Development Goals.

Within the Health Department of IRD, the specific role of the NUTRIPASS unit (Prevention of Malnutrition and Associated Pathologies) is to lead research on nutritional conditions, their origins and consequences, as well as on intervention strategies and policies required to overcome food and nutritional problems (deficiencies and excesses). The research is articulated around various themes which include: the epidemiology of food insecurity (in Sahelian countries), the prevention of micronutrient deficiencies in at risk populations (in all countries), the food and nutritional transition and the epidemiology of associated chronic diseases (in emerging societies). Through this work the team has developed a long and in-depth knowledge of poverty and nutritional issues in North and West Africa, and in Asia, and has gained strong experience in conducting small and large-scale food and nutrition surveys in these areas.

Social protection programmes are now seen as promising policy strategies to reduce poverty, food insecurity and malnutrition in low and middle-income countries. These interventions are increasingly becoming popular and being implemented in Sub-Saharan Africa. Designing appropriate and sustainable programs in African contexts, and targeting those who are in greatest need when a large share of the population is poor is however challenging. The lack of rigorous evaluation of impact, impact pathways and cost-effectiveness of these programs also means that learning opportunities are missed and new programs lack evidence-based models and guidance. In order to contribute addressing this problem, our team has recently written a concept note, in collaboration with IFPRI, entitled “Achieving food and nutrition security in West Africa: Understanding the role of social transfer programs” and which is available from our

respective websites or on request¹. The note describes a research approach to evaluate and strengthen social transfer programs with the aim of optimizing their impact on food and nutrition security of poor populations.

As part of this work, researchers in NUTRIPASS have recently completed several targeting and impact evaluations of World Food Programme food security interventions (food vouchers) in Ouagadougou and Senegal (Dakar-Pikine and Ziguinchor), and of the Government cash transfer intervention in Senegal (Louga region). The team is also about to start the impact evaluation of several cash transfer projects in Mali.

2.2. International Food Policy Research Institute

For almost 40 years, IFPRI, an international non-profit organization, has been conducting research to provide policy solutions that reduce poverty and end hunger and malnutrition throughout the developing world in an environmentally sustainable manner. IFPRI works with policy-makers, academics, nongovernmental organizations (NGOs), development practitioners, and others to undertake research, capacity strengthening, and policy communications activities. The Institute is one of 15 organizations worldwide that make up the Consultative Group on International Agricultural Research (CGIAR).

IFPRI's mission - to provide policy solutions that reduce poverty and end hunger and malnutrition - focuses on identifying and analyzing alternative international, national, and local policies in support of improved food security and nutrition, emphasizing low-income countries and poor people; strengthening the capacity of people and institutions in developing countries to conduct research on food, agriculture, and nutrition policies; and communicating research results to all those in a position to apply or use them. IFPRI places priority on activities that benefit the greatest number of poor people in greatest need in the developing world, with a particular focus on vulnerable groups, influenced by income, gender, religion, ethnicity, and location. A large proportion of IFPRI's work is geographically focused on Africa South of the Sahara and on South Asia.

The Poverty, Health, and Nutrition Division's (PHND) specific role within IFPRI is to lead policy research, communication and capacity strengthening that will help find solutions to reduce household poverty, and to ensure nutrition security among the world's poor. The division is particularly concerned with both protecting and enhancing the investment of poor households in human capital formation as a way to break the intergenerational transmission of poverty.

With the recent ascendance of undernutrition as a global development priority the demand for PHND's work to conduct rigorous multi-disciplinary impact and process evaluations of large scale

¹ Also available at <http://www.nutripass.ird.fr/equipes-programmes/equipe-1-nutritionpublique/activites-de-recherche-a-venir>

social safety nets, food security, and nutrition programs has increased rapidly. The division is well positioned to respond to the increased emphasis on evaluating large-scale programs, and is doing so using well-defined program-theory frameworks and rigorous experimental and non-experimental methods to assess impact. A hallmark of the division's evaluation work is its mixed-methods approach, combining a variety of qualitative research techniques to understand and document program process and impact pathways in a variety of countries, in addition to utilizing quantitative techniques.

Researchers in PHND are currently focusing on evaluations of small and large scale nutrition specific and nutrition sensitive interventions, including food assistance, behavioral interventions, and agriculture-based programs to improve maternal and child undernutrition in countries as diverse as Bangladesh, India, Nepal, Vietnam, Burkina Faso, Burundi, Ethiopia, Senegal, Zambia, and Guatemala. Additionally, researchers in PHND have had significant experience in evaluating social protection programs, and conditional cash transfer programs specifically. IFPRI has been the lead organization evaluating the Government of Ethiopia's productive safety net program (PSNP), the Government of Brazil's conditional cash transfer program-Bolsa Familia, and the Government of Mexico's conditional cash transfer program-PROGRESA. Within the last year PHND researchers have also completed evaluations of different World Food Programme food security intervention modalities (e.g. food vs. cash vs. vouchers) in Ecuador, Yemen, and Uganda.

III. Approach and Methodology

3.1. Overview

Key features of our proposal for the evaluation of Togo's pilot cash transfer program are: 1) to utilize a rigorous cluster randomized evaluation design to assess the impact of the program on key indicators of interest; 2) to use mixed-methods approaches, combining a variety of qualitative and quantitative research methods to understand and document program process, impact and impact pathways; 3) to utilize a multi-disciplinary team of epidemiologists, nutritionists and sociologists; 4) to take advantage of our regional presence and experience working in West Africa; and 5) to build on our extensive impact evaluation experience of social protection and health and nutrition programs in Africa, South Asia, and Latin America.

3.2. Addressing Specific Evaluation Objectives

Our proposed evaluation approach is carefully tailored to address each objective laid out in the ToR for this evaluation:

- Objective 1)** Document and analyze the changes in the nutritional status of the children that benefited from a cash transfer coupled with prevention and management of acute undernutrition activities.
- Objective 2)** Analyze how beneficiary households have spent the cash received and study the impact of the transfers on the development of all the children in the

household and on the respect of their rights (birth registration, enrolment of children of school age, nutrition and health, etc.).

Objective 3) Analyze if family and community dynamics (decision-making capacity, empowerment of women, child protection, etc.) have contributed to the reinforcement of particular behaviors.

Objective 4) Identify the strengths and weaknesses of the program and inform all involved stakeholder, particularly in regard to its cost-effectiveness.

In the sections below, we outline how we will address each of the 4 evaluation objectives.

Objective 1: To address the primary objective of the program's impact on nutritional status of children, we propose to use a cluster randomized evaluation design, with repeated cross-sectional surveys 24 months apart to derive impact estimates *attributable* to the cash transfer interventions. As part of this evaluation, all randomized intervention and control villages (n=162) will be sampled. We will measure anthropometry of children at both surveys. However **we do not expect to be able to detect an impact on stunting or height-for-age Z-score after only two years of intervention**. We may be able to detect an impact on wasting/weight-for-age Z scores, depending on the rates of wasting in the selected regions.

The primary impact estimates that will be generated after 2 years will therefore be derived for other outcomes, measured in children 6-30 month of age, and will include the following:

- i) Select WHO infant and young child feeding (IYCF) indicators;
- ii) Anemia and hemoglobin concentrations (although the expected impact is likely to be small given the project does not include any iron specific intervention such as a fortified product; so the only impact we expect is through changes in IYCF, which may not be observable after two years);
- iii) Wasting prevalence and changes in mean weight-for-age Z-scores.

We will calculate difference-in-difference impact estimates that account for differences between the intervention group at both baseline and endline, and changes within each group.

Impact of the program on secondary indicators at the child level will also be assessed, in particular on child development indicators.

In order to detect an impact on stunting we would strongly recommend that the program is extended for two additional years. We could therefore suggest the following survey timings that retain the cluster randomized repeated cross-sectional evaluation design (see also Figure 1):

- Baseline at T0: sampling the standard age group of 6-59 mo old children;
- Endline 1 at T24 (Baseline + 2 years): sampling the 6-30 mo old children;
- Endline 2 at T48 (Baseline + 4 years): sampling the 6-59 mo old children.

The different sample age ranges at the different survey times allow for the following:

- Within a two-year program, 6-30 mo old children at Endline 1 would be compared to 6-30 mo old children at Baseline (based on the indicators listed above);
- Within a four-year program, 6-59 mo old children at Endline 2 would be compared to 6-59 mo old children at Baseline (based on the indicators listed above + **stunting/HAZ Z-Score for children 12-59 months of age**).

We are open to discussions around this design and the implications for the evaluation of extending the program beyond the 30 month duration that is currently outlined.

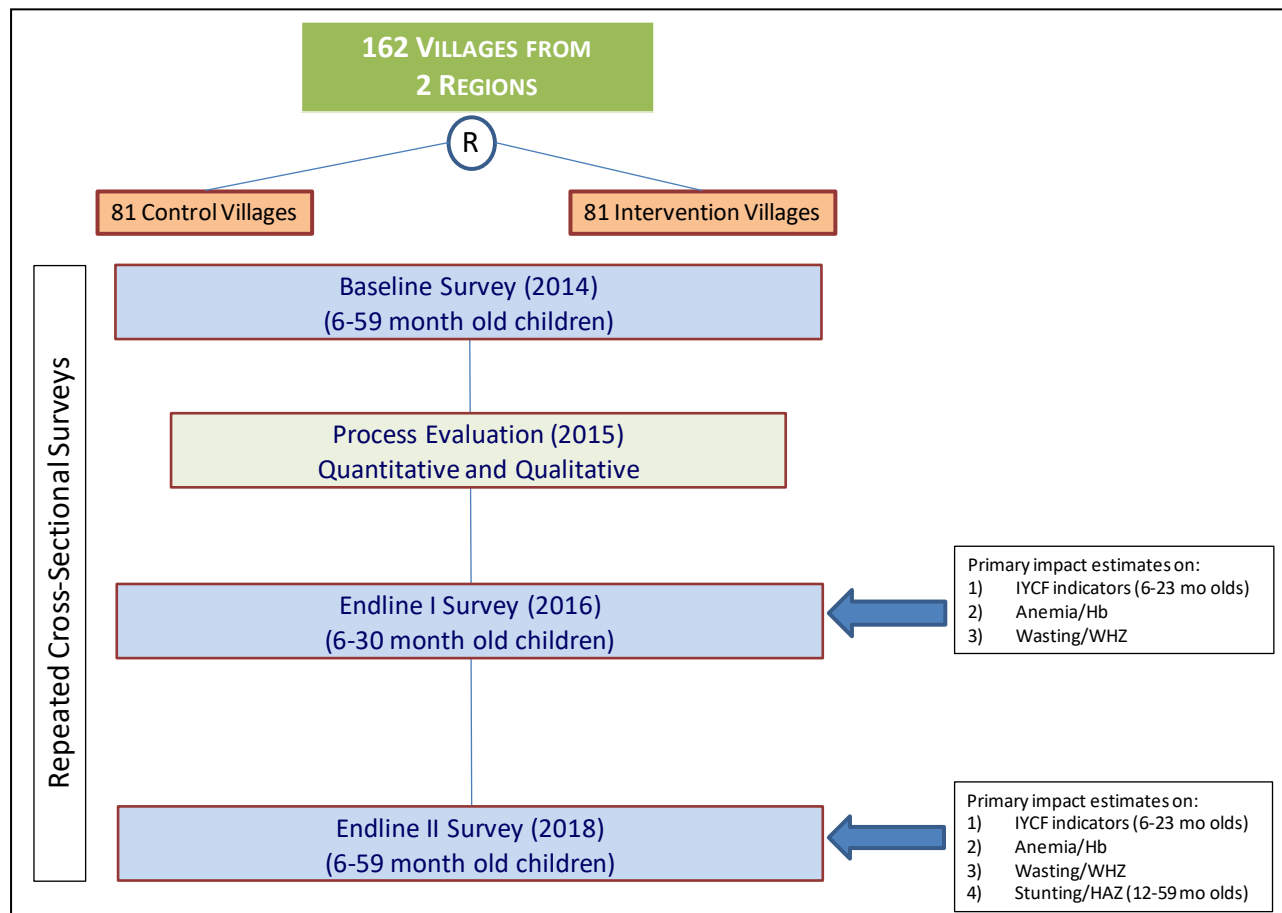


Figure 1: Overall design of the impact and process evaluation

Rationale for selected impact evaluation design (considering a 2-year evaluation design):

1. **Repeated cross-sectional vs. longitudinal design.** We propose to use a repeated cross-sectional survey design rather than a longitudinal design primarily because our previous experience has shown that usual delays in program roll-out and full implementation can have profound effects on the evaluation study cohort (e.g. children aging out of the “window of opportunity” for maximum nutritional impact of the intervention – see point 2 below), making the cohort unusable for assessing impact on age-sensitive outcomes

such as child feeding practices or stunting. Additional constraints with longitudinal designs include the logistical complexity and related additional cost of tracking individual children over time, compared to sampling children of a given age in repeated cross-sectional design. However, given that our team has extensive experience with both types of design, we are open to discussions with UNICEF and the World Bank regarding alternative designs.

2. **Age range of children included in evaluation samples.** The assessment of the impact of nutritional interventions on child anthropometry (as well as other outcomes) should consider the age at which assessments should be made to detect the greatest difference between intervention and comparison areas. Evidence suggests that (1) the *longer* children are exposed to early nutrition inputs (within the first 1000 days from conception to the child's second birthday); and (2) the *earlier* they are exposed within this period, the greater the impact will be.

Furthermore, the age at which the difference in achieved height-for-age is likely to be greatest between intervention and control children is the age period *after* the period of greatest growth faltering i.e. after 18-24 months of age.

The logic of investments made from conception until the child's second birthday is that the investments made in the first two years of life are progressive and cumulative such that our ability to detect a significant impact on anthropometry, particularly, will be greatest among those children who were exposed to interventions in the entire period preceding the peak age of growth faltering. This means that the age at which impact on anthropometry should be assessed is dependent on (1) the child's age at the onset of exposure to program interventions, (2) the total duration of exposure to the interventions within the -9 to 24 month target age-focus, and (3) the age of peak growth faltering.

As impact will also be measured on intermediary outcomes such as complementary feeding indicators, we also have to make sure that the corresponding age group (i.e. children > 6 months of age) is well represented in our sample.

We are applying these principles to define the exact age group for whom to assess impact on feeding and nutritional outcomes, taking into account demographic and logistic considerations.

3. **Duration between baseline and endline surveys.** Although the proposed pilot program is 30 months in duration, given the need to ensure that baseline and endline assessments are conducted at the same time of the year to minimize the impact that seasonality has on key indicators of interest, the duration between baseline and endline assessments should be 24 months apart (allowing extra time for preparation and post-survey analysis).

Given the considerations outlined above, the duration of the program (30 months) and logistical considerations around sample sizes at particular age ranges, we propose sampling children **6-30**

months of age at endline 1 (two years after the baseline), and 6-59 months at baseline (allowing the comparison of the 6-30 month old between baseline and endline 1). This will enable us to estimate the impact of the program on stunting among older children at endline 2, IF the program duration is extended. Sampling the 6-30 month age range is a compromise that takes into account a minimum program exposure of 12 months and first exposure to the program no later than 6 months of age. **These criteria are based on the assumption that the main program intervention of cash transfers will begin immediately following the baseline survey, and continue for 30 months, although at the time of the endline survey no child would have been exposed to the program for more than 24 months. Any delay in the start of cash transfers will have an impact on the age range of children to be sampled.**

The table below illustrates the age of first exposure, and duration of exposure of different aged children, assuming a period of 24 months between baseline and endline surveys, and the cash transfer program starting immediately after the baseline survey:

Table 1. Program exposure of sample age range at endline

Age (mo) at Endline	Age (mo) at First Exposure to Program	Age (mo) at Last Exposure to Program	Total Program Exposure (mo)
0	-6	0	6
6	-6	6	12
12	-6	12	18
18	-6	18	24
24	0	24	24
30	6	24	18
36	12	24	12
42	18	24	6
48	24	24	0
54	N/A	N/A	0
60	N/A	N/A	0

Scenarios illustrating the age of first exposure, and duration of exposure of different aged children, assuming a period of 24 months between baseline and endline surveys, and the cash transfer program starting immediately after the baseline survey, are presented in **Annex 1**.

Anemia assessments will be made on all children, and Infant and Young Children Food indicators will be constructed for all children 6-23 months of age.

Objective 2: This objective will be addressed within the context of the cluster randomized impact evaluation. We draw on our extensive experience evaluating social safety net and health and

nutrition programs by utilizing multi-module household surveys (see section 3.3.4 outlining indicators and modules that will be collected during data collection) that capture data at the **household level** (income, use of cash, food security, employment and expenditure information etc.) and at the **maternal level** (health and nutrition knowledge, empowerment, health and mental status, etc.), in addition to indicators at the level of the child outlined in objective 1. This will enable assessing the impact of the program on these intermediary outcomes and contribute understanding the pathways of the intervention. Some extra quantitative information will also be collected in order to control for possible confounding factors (for example household shocks, WASH, etc.). We will work in close collaboration with the program implementation team to ensure that the constructs defining the key conditionalities of the cash transfer program are captured to understand adherence to the program requirements. Collection of qualitative data during the program will also be planned in order to help understand the impact of the program on these intermediary outcomes.

Objective 3: We will explore how family and community dynamics influence behaviors through inclusion of, among other things, modules on women’s empowerment, and social influencers of key household decisions. IFPRI has a long history of collecting and analyzing women’s empowerment data and we will utilize elements of the women’s empowerment in agriculture index (WEAI) to collect data on the roles and extent of women’s engagement in five domains: (1) decisions about agricultural production, (2) access to and decision making power over productive resources, (3) control over use of income, (4) leadership in the community, and (5) time use. Additional data will be collected around women’s decision making on key child health and nutrition services and behaviors.

Objective 4: A key feature of our proposed evaluation is to utilize a combination of monitoring data and process evaluation methods to generate meaningful and relevant data on program operations, implementation and utilization. This approach will enable us to 1) document the quality and scale of program delivery, 2) identify program implementation bottlenecks, 3) understand issues around utilization of program services and adherences to program recommendations, and 4) measure the level of exposure of the beneficiaries to the program components as they as the program evolves. This will be a distinct activity from the impact evaluation.

We will work closely with the program implementation team to develop a detailed framework of program impact pathways that illustrates the key operational aspects and main hypothesized pathways of impact of the program. The impact pathways framework will guide the collection of quantitative and qualitative data on operational indicators such as those related to cash distribution (timeliness of distribution, understanding of program conditionalities, accessibility of cash distribution points) as well as overall beneficiary perceptions of the program components, the quality of interactions with key program staff and their overall level of satisfaction with the program. Qualitative research in the process evaluation will supplement the larger-scale survey data collection to add richness, depth of understanding, and more nuanced perspectives both

from implementers and program users. The feasibility of scaling-up cash transfers and modifying the conditionalities will also be explored.

We have experience conducting costing studies, using a variety of methodologies, including the activity based costing ingredients (ABC-I) approach that is our preferred approach. However this is a very involved approach that requires close collaboration between the evaluation team and the program implementation to collect detailed disaggregated cost information. We propose having discussions with UNICEF and the World Bank regarding the approach to costing, and are open to utilizing a less involved (and less costly) approach.

3.3 Impact Evaluation: Technical aspects of the quantitative approach

3.3.1. Sampling procedure

The study will use an experimental design involving randomization at the village level. Five districts in the regions of Savanes and Kara were first selected based on poverty and malnutrition rates, representing a total of 273 villages. Intervention and control villages were then randomly selected from this list, stratified by district. All pregnant women (from 3 mo of pregnancy) and children under 2 years of age living in these selected villages will be enrolled into the program.

The baseline and endline surveys will respectively sample children aged 6-59 and 6-30 months of age from the 162 villages, and their mothers, randomized into either an intervention or control village. As it appears that the randomization of villages has already been conducted, we would be keen to obtain further details on the specifics of how this was done in order to ensure that the evaluation capitalizes efficiently on this experimental design.

3.3.2. Sample size calculation

Sample size estimates are calculated based on changes in 3 different impact indicators: 1) stunting and HAZ (assuming a 4-year program since impact on these indicators will not be seen after two years), 2) dietary diversity among children 12-23 months of age, and 3) anemia and hemoglobin concentrations.

Sample sizes are calculated based on the following principles:

- Using tests that compare means and prevalence between the two groups;
- Taking into account the design effect since randomization is carried out at the level is the village, not the individual;
- Using a conservative approach which consists of not taking into account the fact that randomization is stratified by district;

The following parameters are fixed:

- α risk at 0.05;

- power at 90% ;
- 162 villages to be randomized, 81 per group;
- Missing/invalid data at 10%.
- An intra-village correlation coefficient (ICC) that varies from 0.02 to 0.15
- ~38% of the 6-59 mo old children are between 6 and 23 months.

Based on the sample size estimates (see **Annex 2**), we propose a sample size of 802 children aged 6-23 months /group, at baseline. This sample size will allow us to detect a difference of:

1. 9 points in prevalence of stunting and 0.25 mean HAZ
2. 0.30 points of dietary diversity score using a seven food group classification
3. 10 points in prevalence of anemia and 2.5g/L in Hb concentration

The sample size will be extended to 2104 children aged 6-59 mo/group, at baseline (and at endline2 after 4 years of program is the latter is extended).

3.3.3. Questionnaire design and implementation

Our research team has considerable experience in implementing the individual, household, and community questionnaires envisaged under this study. Given this experience, we would design and implement questionnaires that meet the specific needs of this evaluation while ensuring, where possible and appropriate, that information collected can be comparable to other studies in Togo or in other countries (using standard modules when possible).

We propose using Computer Assisted Personal Interviews (CAPI) for this survey work. Specifically, enumerators will use tablet PCs on which, using a stylus, they enter responses to questions on a touch sensitive screen. While the advantages of CAPI are numerous, two stand out as being particularly valuable. First, randomized trials have shown that it produces fewer errors than conventional paper based interviews. This occurs because CAPI ensures that: responses fall within correct range values; answers are not miscoded; skip patterns are correctly followed; and that there are no errors introduced during data entry. Second, data are available for analysis almost immediately after the completion of the survey; there is no need to wait for data entry to be completed or for lengthy data cleaning routines to be run. Concerns over the use of CAPI typically fall into two categories: it affects the dynamics of the interviewer-respondent relationship; and there are logistical concerns regarding preservation of data and battery life. The research team has extensive experience with the implementation of CAPI in several countries. In our experience, the dynamics of the relationship are not adversely affected; indeed, because skip patterns are typically followed more smoothly, they are actually enhanced. This is consistent with the implementation of CAPI elsewhere. Second, we have developed protocols for transferring data from the tablets to full size laptops and for ensuring sufficient battery life.

3.3.4. Data collection and indicators

Data will be collected at different levels: household, mother and child. We provide here a list of data/modules we intend to collect under this study, as well as the key indicators that will be computed:

❖ AT THE HOUSEHOLD LEVEL

Household composition and characteristics: This will provide us with the information about the household size, the gender of the household head, occupation and education of the household members. This background information is important for describing the survey population, comparing the survey population in the intervention and control group, and assessing changes independent of the program, if any, between baseline and endline. Additionally, data from this module is instrumental for analyses, as these are the factors that will be controlled for when looking into the association between the independent variables (such as exposure to the program) and outcomes.

Socioeconomic status and household assets: Socioeconomic status (SES) is an underlying determinant of child nutrition status. It can be measured in different ways, and we propose to use an asset-based approach. The detailed information on household assets here will be used to create factor-analysis based scales of household SES. In addition to the basic household assets, we will also include questions on ownership of assets and control over assets. Knowing about the baseline situation both on overall household assets and construction, as well as women's control over these assets, will help the evaluation team capture critical underlying factors that might influence the effect of the program inputs.

Household food expenditure: Food expenditure will be recorded using a recall of expenses on the previous day, week, or month for foods bought daily, weekly, or monthly, respectively. All expenses will then be converted into daily food expenditure, summed, and divided by the total number of adult-equivalents (AE) in the household, calculated based on individual energy requirements.

Household nonfood expenditure: They will be calculated from expenditures on the following items: entertainment, personal hygiene, clothing, shoes, transportation, beauty services, communication (telephone and Internet), durable goods, jewellery, housing (rent and repairs), energy for cooking, water, electricity, health and education. All expenditures will be converted to monthly values, and adjusted for the size of household.

Household Food Security and Dietary Diversity: The HH Food Security module (HFAS, Household Food Insecurity Access Scale) is a validated measure of food security that has been developed by Food and Nutrition Technical Assistance (FANTA) project. It consists of 9 specific statements about the availability and accessibility of foods for the household as well as household concern about food. The HH dietary diversity module, also a validated FANTA module, is a proxy measure of HH food access which is the ability of a HH to acquire sufficient quality and quantity of food to meet all household members' nutritional requirements for productive lives. A more diversified

diet is associated with a number of improved outcomes including child anthropometric status and micronutrient status. It is important to understand how such HH factors can mediate the potential impact of the program in these areas, plus these both scales can be administered in a short duration.

Household economic shocks: It is reasonable to believe that during the life of the program (or just before) a household may experience an economic shock, which in turn may influence child nutritional or feeding outcomes. Capturing information on such economic shocks, retrospectively, is therefore critical to any assessment of impact. If indeed households in the program experience economic shocks, this may explain any lack of a positive impact on the program on outcomes that may be observed.

Hygiene Spot Checks: Hygiene and sanitation are known to be key mediators of child nutritional status. Given the strong association between illnesses such as diarrhea and nutritional status, it is critical that we carefully examine the hygiene and sanitation environment at the HH level; this will allow the evaluation team to capture a critical underlying determinant of child nutritional status. The spot check method has been used extensively in the past. Reviews of studies carried out in various contexts have confirmed that spot-checks are a promising alternative to structured observations, because they are less intrusive, less time-consuming, more economical, and less reactive.

❖ AT THE MATERNAL LEVEL

Civil status, education, employment of mothers, and child care arrangements: Basic characteristics of mothers will be collected. We will also gather data on women's work and schedule/allocation of time as part of this survey module since it is directly related child care and child feeding. Caring practices of mothers towards their child will also be assessed.

Mother's condition and decision making power: Research demonstrates clearly that women's control over assets/income and women's status, more broadly, is an important determinant of child nutrition. It has also been demonstrated that participation in information groups, community/social networks empowers women and enhances their capability to make better decisions regarding child welfare. Women's decision making power in matters related to household issues and child health and nutrition, as well as control over purchasing will be the main focus of this module.

Pregnancy and postnatal care (youngest child): Child nutrition is influenced by a mother's exposure to prenatal care and nutrition inputs during pregnancy. In addition, maternal exposure to information about infant feeding, particularly breastfeeding, begins at the pregnancy period. This module will provide information about the nature and extent of contacts mothers are having with the health care system, during pregnancy and the post-natal period.

Mother knowledge, attitudes and practices on nutrition, health and children protection: The program aims at improving mothers' knowledge as a route to improving IYCF practices, care practices, and child nutrition. Changes between baseline and endline in the knowledge, attitude and practice after controlling for other factors such as background characteristics, education, and economic status will indicate the effects of the intervention.

Mother's physical and mental well being: Women's own wellbeing is a critical resource for ensuring that women are able to care for their children. In addition, previous research has shown that household food security has influences on women's wellbeing, which in turn influences their ability to care for their children, and feed them appropriately. We will include in this module validated measures of mental wellbeing (stress) and physical wellbeing. The purpose of including this module is to understand the role of women's wellbeing in relation to children nutritional and health outcomes, and more importantly, to ensure that there are no negative changes in wellbeing over the life of the project that could lead to lowered impacts of the program interventions.

Anthropometry: We will measure mothers' height and weight, using the standard WHO recommendations. Either raw data or body mass index indicator will be used to assess mother's nutritional status, which can be a predictor of the child nutritional status.

❖ AT THE CHILD LEVEL

Child immunization and health history of recent disease: These are an integral part of any child health and nutrition survey. In nutrition surveys, this information has added importance as nutritional status of a child is influenced by infectious diseases. Therefore, immunization status is important to capture. This module also captures information on child appetite, which is important to assess in relation to overall child feeding, but also in relation to parental responsiveness to poor appetite and other feeding problems.

Infant and Young Children Feeding Practices (IYCF): This covers an array of breast feeding and complementary feeding history to enable computation of the 8 WHO recommended IYCF indicators (early initiation of breast feeding, exclusive breastfeeding, continuation of breast feeding, introduction of complementary feeding, dietary diversity, etc.), as well as to assess IYCF practices in greater detail than just the WHO recommended indicators. These will be computed for 12-23 mo old children.

Child Development: Inadequate nutrition and household food security have been found to be associated with speech and cognitive development of a child. This module will provide data on child development, which may be affected by the intervention.

Anthropometry: We will measure child height and weight to enable use of all three primary indicators of anthropometric growth in children, i.e., stunting, underweight, and wasting. Standard measurement tools will be used to measure height and weight, and the WHO reference

standards for anthropometry will be used to estimate z-scores and the prevalence of stunting, underweight, and wasting.

Anemia: We will measure anemia in all children. We will use hemoglobin as our indicator of anemia prevalence, and measure this using field-friendly Hemocues.

3.4. Qualitative approach to evaluating outcomes

As previously outlined in the proposal, we will conduct qualitative surveys during and at the end of the program, to complement the quantitative data set. This will provide a richer pool of data and greater analytic power than would have been available with the quantitative method used alone. We will use a mix of focus group discussions and key informant interviews at different levels to explore, qualitatively, the impact of the cash transfer program. Explorations will include: overall beneficiaries' perceptions of program benefits and operational issues, experience of beneficiaries in complying with soft conditionalities and their sense of both the benefits and disadvantages of being selected for program participation, quality of interactions with key staff. We will explore the desirability and feasibility of having "children only" focus groups and key informant interviews so as to obtain a child-centered perspective on the impact of the program. We will also investigate how the money is spent and distributed within the household.

3.5. Process evaluation

A combination of monitoring and process evaluation methods will be used to generate meaningful and relevant data on operational and utilization aspects of the program interventions. This approach will enable us to 1) document the actual functioning of the program, and possibly suggest improvements 2) measure the level of exposure of the beneficiaries to the program components at baseline and endline.

This module will be designed to reinforce the Monitoring & Evaluation module already planned by the program implementers. The module will include quantitative information on: operational indicators on payments; access to pay point (travel time; costs associated with travelling to pay point; amount of time spent waiting at the pay point); whether payments are timely and complete; knowledge and compliance to soft conditions; attendance to activities (session of information/sensitization, etc.); information on health care facilities.

Qualitative research in the process evaluation will supplement the larger-scale survey data collection to add richness, depth of understanding, and more nuanced perspectives both from implementers and program users. The feasibility for scaling-up cash transfer and conditionality will also be explored.

Process indicators and the qualitative work at mid-term described in Sections 3.4 and 3.5 will allow to 1) adjust the program if necessary and 2) provide intermediary data useful for the advocacy of the program's extension.

IV. Workplan and timeline

The following is a rough work plan based on a 24 month period between baseline and endline, as discussed in section III. A more detailed timeline will be developed in dialogue with the project implementing team.

❖ Year 1

▪ **Inception/exploratory mission**

We propose commencing the project with an inception visit to Togo. This will serve as a means of ensuring that all stakeholders (government, UNICEF and others) have the opportunity to meet face-to-face, to re-affirm objectives of the evaluation, the impact evaluation methodology, the timeframe and the design of the quantitative questionnaire.

Specific activities will include:

- Field visit
- Sampling design and protocol will be finalized
- The protocol will be submitted to the National Ethic Committee of Togo and the Institutional Committee of IRD and/or IFPRI

▪ **Baseline quantitative survey**

The following activities will take place during the three months preceding the baseline survey:

- An electronic version of the questionnaire will be prepared and disseminated for comment and approval of the Comité de Pilotage. Once finalized and after being tested, data entry programs will be written and uploaded onto the tablet computers
- Liaison with local authorities and program staff will take place
- Enumerators will be hired and trained on data collection and hemoglobin and anthropometric measures
- Community and household surveys will be implemented as described in Chapter 3.
- Analysis and Reporting

After performing the data analysis, a draft of documentation would be proposed, followed by a workshop to discuss preliminary findings and revision of these materials. We would then submit final versions of our first report covering the following topics: survey implementation; characteristics of surveyed households; comparability of beneficiaries and non-beneficiaries. We would also provide an electronic copy of the baseline data set.

❖ Year 2

▪ **Qualitative evaluation**

Mid-term qualitative surveys will be conducted in order to help understanding the program impact and impact pathways, as well as the beneficiaries' perceptions of the program.

- **Process evaluation**

- Light quantitative and qualitative surveys will be performed at mid-term to strengthen activities already planned by UNICEF (monitoring and evaluation), as described in section 3.5, and to supply data for an analysis of feasibility for scaling-up cash transfer and conditionality.
- Cost data could be collected at this time; however, the relevance and feasibility of doing a cost-effectiveness study needs to be discussed further.
- The second report would cover the following topics: survey implementation and operational issues associated with program implementation. We would also provide an electronic copy of the mid-line data set.

- ❖ **Year 3**

- **End-line quantitative survey**

The following activities will take place 24 months after the baseline. An electronic version of the questionnaire will be prepared and disseminated for comment. Once finalized, data entry programs will be written and uploaded onto the tablet computers. This questionnaire will be broadly comparable to the baseline survey. However, new questions will be added on beneficiaries' experience with the cash pilot. Specific activities will include:

- Liaison with local authorities and program staff will take place
- Enumerators will be hired and trained
- Community and household surveys will be implemented.

- **Analysis and reporting**

We will analyze data and submit draft documentation to UNICEF and the Comité de Pilotage. This would be followed by a workshop to discuss preliminary findings and revision of these materials. We would then submit final versions of our final report which will focus on program impact (from both quantitative and qualitative perspectives) and other operational issues. We would also provide an electronic copy of the end-line data set.

IFPRI and IRD will also work on academic manuscripts and policy briefs based on the findings of the impact evaluation.

- ❖ **Project Deliverables**

We propose the following deliverables:

- A finalized evaluation design and protocol (including draft questionnaires) based on detailed discussions with the program implementation team (before the project starts);
- A baseline report comparing characteristics between the intervention and control groups (after baseline survey);
- A qualitative and process evaluation report based on qualitative findings, and interim quantitative data collection (after mid-term surveys, i.e. approximately at 18 months after the start of the program);
- A final impact evaluation report estimating difference-in-difference impact estimates for key indicators (after endline survey).

Annex 1: Scenarios illustrating age of first exposure, and duration of exposure of different aged children.

The scenarios assume a period of 24 months between baseline and endline surveys, and the cash transfer program starting immediately after the baseline survey:

- Children less than 6 months of age at endline will have been exposed to the program for a too short duration, and their age of last exposure would be less than 6 months of age.
- Children who are 6 months of age at endline will have first been exposed to program interventions *in utero* at -6 months of age (the age at which the program targets women i.e. at 3 months of pregnancy) and will have been exposed until they reached 6 months of age. Their total program exposure would be 12 months. This is a too short and early exposure to the program, limiting the period of maximum potential to benefit. However this age group has to be included in order to measure impact on IYCF indicators.
- Children who are 12 months of age at endline will have first been exposed to program interventions *in utero* at -6 months of age (the age at which the program targets women i.e. at 3 months of pregnancy) and will have been exposed until they reached 12 months of age. Their total program exposure would be 18 months. This sample is not ideal to detect impacts on stunting, as program exposure ends during the period of rapid growth faltering i.e. before 18-24 months of age.
- Children who are 24 months of age at endline will have first been exposed to program interventions *in utero* at birth and will have been exposed until they were 24 months of age. Their total program exposure would be 24 months.
- Children who are 30 months of age at endline will have first been exposed to program interventions at 6 months of age and will have been exposed up until they were 24 months of age. Their total program exposure would be 18 months.
- Children 36 months of age and older at endline will have first been exposed to the program after 12 months of age, which would likely be too late to detect impacts on stunting.

Annex 2: Detailed estimation of sample size, using various indicators

Indicator	Expected difference (6-23 mo)	Variance	ICC											
			0.02		0.03		0.05		0.10		0.15		0.20	
			n/arm 6-23 mo	n/arm 6-59 mo	n/arm 6-23 mo	n/arm 6-59 mo	n/arm 6-23 mo	n/arm 6-59 mo	n/arm 6-23 mo	n/arm 6-59 mo	n/arm 6-23 mo	n/arm 6-59 mo	n/arm 6-23 mo	n/arm 6-59 mo
HAZ (SMART 2010 National - 0 - 5 y)	0.25	1.3	535	1404	624	1637	713	1871	981	2574	2228	5845	inf	inf
	0.20	1.3	891	2338	981	2574	1248	3274	4366	11453	inf	inf	inf	inf
	0.15	1.3	1872	4911	2406	6312	5079	13323	inf	inf	inf	inf	inf	inf
	0.10	1.3	9089	23841	inf	inf	inf	inf	inf	inf	inf	inf	inf	inf
Hemoglobin (Berger J et al, 2000 West Togo rural 6 - 36 mo)	15.0	132	90	237	90	237	90	237	90	237	90	237	90	237
	10.0	132	90	237	90	237	90	237	90	237	90	237	90	237
	5.0	132	179	470	179	470	179	470	179	470	179	470	179	470
	3.0	132	446	1170	446	1170	446	1170	446	1170	535	1404	535	1404
	2.5	132	535	1404	268	703	624	1637	713	1871	891	2338	981	2574
	2.0	132	891	2338	981	2574	1070	2807	1426	3741	1693	4441	1961	5144
1.0	132	5168	13556	6148	16127	8198	21504	13276	34824	18355	48146	23345	61235	
Dietary Diversity (7 food groups) (6-23 mo, Ouagadougou and Bobo-Dioulasso, 2011)	1.00	2	90	237	90	237	90	237	90	237	90	237	90	237
	0.50	2	268	703	268	703	268	703	268	703	268	703	268	703
	0.40	2	357	937	357	937	357	937	357	937	446	1170	446	1170
	0.30	2	624	1637	624	1637	713	1871	802	2104	891	2338	1070	2807
	0.25	2	891	2338	981	2574	1070	2807	1337	3507	1604	4208	1872	4911
	0.10	2	9356	24542	11762	30853	16395	43005	28156	73855	39917	104704	51768	135790
Stunting prevalence (SMART 2010 Savanes + Kara 12-35 mo)	29.11%	19.11%	535	1404	535	1404	535	1404	624	1637	713	1871	802	2104
	29.11%	20.11%	624	1637	624	1637	713	1871	802	2104	981	2574	1070	2807
	29.11%	22.11%	1070	2807	1159	3041	1337	3507	1782	4675	2139	5611	2584	6778
	29.11%	25.00%	4277	11219	5079	13323	6683	17530	10603	27813	14524	38097	18533	48613
	29.11%	26.11%	10960	28749	13900	36461	19692	51653	34215	89748	48649	127609	63172	165703
29.11%	27.11%	42056	110315	57292	150280	87586	229742	163499	428864	239323	627753	315236	826876	
Prevalences of anemia (Benin 6-59 mo)	60.6%	50.60%	713	1871	713	1871	802	2104	891	2338	1070	2807	1248	3274
	60.6%	52.80%	1159	3041	1248	3274	1426	3741	1872	4911	2317	6078	2673	7012
	60.6%	55.00%	2495	6545	2852	7481	3564	9349	5257	13790	6950	18231	8732	22905
	60.6%	55.60%	3386	8882	3921	10285	4990	13089	7752	20334	10425	27346	13187	34590
	60.6%	58.60%	57114	149813	78676	206371	121800	319486	229700	602512	337600	885538	445500	1168563
	60.6%	59.60%	743985	1951500	1088268	2854567	1776744	4660465	3498066	9175556	5219300	1,4E+07	6940534	1,8E+07