RESEARCH PROGRAM ON Agriculture for Nutrition and Health
CGIAR
Led by IFPRI

July 29, 2016

A4NH Response to ISPC Commentary on the Full Proposal for Phase II (2017-2022)

Point #1. Provide greater clarity on the researchable questions the CRP will focus on in relation to overweight and obesity and the comparative advantage of the CRP in addressing this complex and growing problem in low and middle income countries.

Overweight and obesity issues have not traditionally been at the forefront of CGIAR research, but given the importance of this global problem, we agree that CGIAR – and A4NH in particular – need to pay more attention to overweight and obesity in its research, while retaining an emphasis on undernutrition. The A4NH contribution will be through improving diet quality and will focus on two domains – understanding linkages between diet quality and food systems in FP1: Food Systems for Healthier Diets and supporting cross-sectoral agriculture and nutrition policies and programs in FP4: Supporting Policies, Programs and Enabling Action through Research (SPEAR).

Poor diets contribute to the multiple burdens of malnutrition – undernutrition, micronutrient deficiencies, and overweight and obesity (International Food Policy Research Institute (IFPRI) 2016). Improved diet quality underlies the approach accepted by the Second International Conference on Nutrition (ICN2) recommendation to address under- and overnutrition together and the focus of the Sustainable Development Goals (SDGs) on addressing malnutrition in all its forms by promoting diversified, balanced and healthy diets (Food and Agriculture Organisation of the United Nations (FAO) and World Health Organization (WHO) 2014; International Food Policy Research Institute (IFPRI) 2016). The concept of diet quality in FP1 and FP4 has two important aspects: **adequacy and moderation**. Adequacy refers to getting enough energy, macro-and micronutrients and desirable foods and food groups (whole grains, fruits, vegetables, fish, meat, nuts and seeds, beans and legumes, milk, eggs, and dietary fiber). Moderation refers to restriction of unwanted nutrients, foods or food groups (unhealthy foods) such as fat (especially saturated fat), cholesterol, excessive energy (sugar and sugar-sweetened beverages), and sodium (Herforth et al. 2014; Alkerwi 2014). A healthy diet can help prevent both undernutrition and micronutrient deficiencies and mitigate the rise of overnutrition among poor and vulnerable populations.

Therefore, A4NH will consider overweight and obesity in our Phase II research in five ways.

1. Characterize adequacy *and* moderation in diet quality assessments undertaken in FP1 (CoA1) and FP4 (CoA1) and scenario analysis in FP1 (CoA1).
2. Identify key leverage points and evaluate interventions, within the overall food systems framework(FP1, CoA1, Box 2.1, research question 5, in the Full Proposal) for improving diet quality by making healthier diets available, accessible, affordable and acceptable (Herforth and Ahmed 2015). Some examples are:
    i. Incentivize efficiency and effectiveness in production of fruits and vegetables (CoA2, Box 2.1.4, research question 2)
    ii. Assess the influence that food systems activities related to food processing, packaging, preparation and distribution may have on diet quality through sugar, salt, and fat content of processed foods, which encompasses everything from ultraprocessed foods to street foods and fast food (CoA3, Box 2.1.6, research question 1).

iii. Generate evidence on innovations with local SMEs that maintain nutrients during processing and distribution and limit levels of fat, sugar, and salt in processed foods (CoA2, Box 2.1.4, research questions 1, 2 and 3).

In FP1's four focus countries (Bangladesh, Ethiopia, Nigeria and Vietnam) specific research questions will be developed at country level in consultation with local governmental, (inter)national knowledge institutes, civil society and the private sector. Some examples of how research questions can be linked to ongoing interventions and innovations are summarized in a meeting report of food systems for healthier diets in Ethiopia that took place in February 2016.

3. Include outcomes related to over and undernutrition in rigorous impact evaluations of nutrition-sensitive interventions. Past studies have found that programs designed to address undernutrition have contributed to substantial increase in household energy consumption (Leroy et al. 2010; Hidrobo et al. 2014; Leroy et al. 2013) and weight gain among women who were not underweight at baseline (unpublished results). Avoiding such unintended consequences on overweight and obesity should be considered in program design and tracked through process and impact evaluation.

4. Research results from points 1, 2 and 3 above will assist A4NH to bring considerations of diet quality, including both adequacy and moderation, into its integrative role to support other CRPs with frameworks, methods and tools that they can use in their research, especially on value chains and value addition.

5. In policy research (CoA3 in FP1, COA2 in FP4), stakeholders can include considerations of overweight and obesity in analyses of improving diet quality through food systems or public program and policy interventions. The main research questions will be in the convergence or divergence of policy stakeholders, policy approaches and interventions on different types of malnutrition for different groups.

The proposed approach leverages the considerable existing comparative advantage of FP4 in integrated programs and policies for undernutrition to include objectives for reducing (or avoiding increases in) overweight and obesity. It also seeks to leverage emerging comparative advantage in FP1 that adds research on consumption and demand-side factors to a more systematic approach to supply-side factors across commodities in a food systems context. It also brings new leadership from Wageningen UR with broader technical capacity in food systems research, including research on overweight and obesity in its Division of Human Nutrition, as well as linkages through the Global Alliance for Improved Nutrition (GAIN) and business schools for engaging the private sector. A4NH will work with national and international partners to better understand how its approaches to improving diet quality and cross-sectoral agriculture, nutrition, and health policy complement research from other groups on tackling overweight and obesity in low- and middle-income countries.

<u>Point #2</u>: FP1 (Food Systems for Healthier Diets) should provide further details about the relevant research questions and methods to address them so that its potential contribution to CGIAR SLOs is clearer and more defensible.

FP1 is new and responds directly to the IDO on improving diet quality under SLO2, but with explicit contributions to SLO1 (poverty), SLO3 (environmental sustainability) and the cross-cutting IDOs. While this research builds on the current Value Chains for Enhanced Nutrition flagship of A4NH, much of the research proposed in FP1 is at an early stage. The entry point is consumption rather than production, an important change for CGIAR. Two major implementation changes are proposed to tackle this new challenge. The first is new partnerships, including Wageningen UR, as the FP leader, having a much greater breadth and depth of expertise required for food systems research and also GAIN, to help facilitate the essential private sector partnerships for innovation and scaling. The second change recognizes the role of A4NH as an integrating CRP in building synergies with the agri-food system CRPs (AFS-CRPs) on the efficient and effective supply of foods to improve diet quality (adequacy and moderation) and with the three other integrating CRPs on sustainability and overall agricultural policy. Given the national specificity of food systems, this demand-supply integration is planned in four, highest priority (++) countries for CGIAR Site Integration – Bangladesh, Ethiopia, Nigeria and Viet Nam – representing a range of geographies and levels of economic development.

The importance of improved diet quality to achieving SLO2 is well understood. The research strategy, questions, and expected outputs (see below) build on theories of change (ToC), which include both expected outcomes and key assumptions underlying their achievement. These ToCs will be regularly updated on the basis of new evidence and experience (Mayne and Johnson 2015). FP1 will, over time, be able to systematically reduce uncertainty and improve understanding of where, how, and how much food system research can contribute to healthier diets. The research agenda described below, by cluster, responds to the areas of greatest uncertainty in the ToC where the research team has a comparative advantage in undertaking the research.

FP1 research outputs, by cluster of activities (CoA)	**CoA1**	**CoA2**	**CoA3**
1-Portfolio of validated metrics and tools for assessing diet quality and characterizing food systems	X		
2- Portfolio of methods and tools for food systems foresight and scenario analysis that integrate diet-related outcomes	X		
3-Key leverage points for improving diets for target beneficiaries (including women and children) through food systems identified from improved understanding of diets and dietary transitions in target countries	X		X
4-Evidence base on the effectiveness and impacts of food systems interventions from inside and outside of A4NH on diets and other outcomes, disaggregated by gender		X	
6-Policy process analysis and policy engagement on improving food systems for healthier diets			X
7-Awareness and capacity developed among key individuals and groups, including other CRPs, in relation to improving food systems from a diet quality perspective	X	X	X

CoA1

The overall goal of research in CoA1 is to characterize diet-food system dynamics in the four focus countries. The results of the initial assessments in each country will be used to inform activities in the other CoAs and for initial engagement with other CRPs. The initial assessments of diet-food system

linkages will be refined and improved as gaps in methods, metrics, and data are identified and filled by A4NH and other researchers.

Concept development, metrics, and tools

Despite the proliferation of scores and indices that measure different aspects of diet quality (Haines, Siega-Riz and Popkin, 1999; Waijers, Feskens, and Ocké, 2007; Wirt and Collins, 2009; Caspi et al., 2012; Alkerwi, 2014), simple but valid tools to assess all relevant aspects of dietary intake are not (yet) available. These lighter methods (as compared to the gold standard 24-hour dietary recall) may be more appropriate and cost-effective for agricultural and food system investments, especially in developing countries. However, they need to validated and harmonized. Relatedly, metrics and tools to characterize and typify food systems are becoming available but are in early stages of development and are also not yet harmonized or systematically used for food system assessment. Therefore, at the start of Phase II, metrics and tools available for diet quality assessment and food systems characterization will be reviewed, assessed and improved. Projects that will be incorporated from Phase I into Phase II include a cooperative effort with the World Food Programme (WFP), funded by the Innovative Methods and Metrics for Agriculture and Nutrition Actions (IMMANA) initiative, to improve food system metrics. The project takes a multi-chain approach and includes value chains with structured demand (e.g., schools and hospitals).

Characterization and assessment

The tools developed will be applied in the four focus countries to generate comparable case studies. A thorough inventory will be made in each country on the availability of nationally-representative dietary data and on food composition tables.

The types of analyses will depend in part on available data. Where data are available, observational studies will look at how diets and food systems have changed over time to provide country level insights and set up cross-country comparisons (e.g. Headey et al., 2015). Such studies will build on work being done by other similar projects (e.g. INDDEX, GIFT). For forward looking analyses, our proposed modeling work, linked to research in PIM, will go far beyond the burgeoning literature on, for example soda taxes, to look more broadly at the policy environment, for example to study how either local policies (such as input subsidies) or even trade policies affect diets. To give an example, in the case of trade policy, we consider that low tariffs for grains relative to healthier products (e.g. pulses, vegetables) can affect the relative price level, which then affects diets. Part of the scenario analysis will consider the impacts of trade policy on nutrition (e.g., Laborde et al. 2016).

To look at multiple outcomes, we will link different models through input and output data linkages, following the example of SUSFANS. The SUFSANS toolbox includes both well-established models in the field of agricultural, economic and biophysical modelling, such as MAGNET, CAPRI and GLOBIOM, and purposely developed models of optimal diets (e.g., SHARP for Europe) and short-term price perturbations (e.g., AgriPrice4Cast). The toolbox is developed by enhancing existing long-term models, subsequently linking these models with each other and other mostly novel, short-term models and micro models of consumer behavior and diets. Outcomes of variables produced by the various models will serve to quantify performance metrics on sustainable food and nutrition security.

Policy and modelling work will be done in close collaboration with other integrative CRPs. Both PIM (value chain FP) and CCAFS, will have offices and researchers co-located with the A4NH FP1 leader at Wageningen UR.

Links to CGIAR
FP1 can play an important role in supporting the AFS-CRPs in understanding the dietary impacts of their innovations, especially those developed as part of their value chain work. Typically, CGIAR work on value chain innovations considers income generation as a goal, but does not consider the dietary impacts. FP1 seeks to support CGIAR researchers outside of A4NH to consider diets and diet-food system linkages in their work and look at both synergies and trade-offs among potential outcomes. We will support the AFS-CRPs, in particular, through a community of practice (CoP) on food systems research.

CoA2
CoA2 focuses on analyzing the effectiveness, including cost-effectiveness, of specific approaches for stimulating both demand for and supply of healthier foods (Box 2.1.4). The analysis follows from a framework developed to study nutrition-sensitive value-chain interventions (Gelli et al. 2015). The proposed research builds upon research developed during Phase I of A4NH.

Experiments on the demand side
It is important to first prioritize questions about mechanisms that can increase (or, given the obesity question, decrease or simply shift) demand. Three important factors that influence demand for nutritious foods are availability, prices, income (purchasing power) and information (though there are certainly others). Whereas the association between income and indicators of nutrition are fairly well established (e.g. Ruel and Alderman 2013), the way that either changing prices or providing information affects demand is not well known.[1] The goal therefore is to contribute to a nascent knowledge base about either the types of information transmission or incentives that can stimulate demand. Retail prices in particular can be manipulated through timed, experimental discounts to stimulate demand. From an information perspective, consumers may not understand the importance of a healthier diet or even what foods are healthy. Therefore, it is necessary to disseminate information about attributes of healthy foods/diets, but there is little agreement in the literature on effective methods of behavior change communication (BCC) for improving demand for healthier foods. A priority research question, then, is: how can either programs or specific product types (e.g. nutritional labeling) actually increase demand or consumption of more nutritious foods? Similarly, to achieve healthier diets it is important that consumers make healthier food choices. Therefore, another priority question is: what behavioral responses or drivers can we identify to make healthier food choices be seen as desirable in the focus countries? In both cases, we expect that research will involve lab-in-the-field experiments, which can include consumer choice experiments (e.g., Chowdhury et al. 2011; Birol et al. 2015), and may be incorporated into randomized control trials (RCTs), (particularly for BCC; e.g. de Brauw et al. 2015).

During Phase I, experiments with methods of stimulating demand for nutritious foods commenced. Several experiments were carried out in Bangladesh. Two studies focused on specific value chains: one placed nutrition messages on seed packets given to randomized groups, and a second looked at factors stimulating demand for yogurt, in the context of a dairy value chain intervention. In another, women were organized into cooking contests that required the use of more nutrient-dense foods, to test whether this could encourage the use of more nutritious ingredients in selected communities. A project, under development, will measure the change in people's willingness to pay for specific pulse products when nutrition information is displayed prominently on the packaging. In India, an intervention using innovative methods of getting unsold vegetables into the hands of relatively poor consumers is being tested and evaluated by A4NH researchers. In Latin America, Phase I experience has formed the basis for

[1] From the perspective of prices, it is known that nutritious foods are price elastic (e.g. Adreyeva, Long, and Brownell 2010) but few estimates of elasticities are developed from experimental data.

the execution of nutrition-sensitive value chain work, including research on preferences of poor consumers in Colombia, Honduras, and Nicaragua. It will be important to build on these lessons in Phase II in order to better understand how to stimulate demand for heathier diets. As noted, much of this research is not in journals yet, but some is already influential; the value chains nutrition framework is being used by WFP and IFAD, for example, in planning projects.

Experiments on the supply side

On the supply side, there are two sets of important questions. To the extent that either fruits, vegetables, or new types of processed foods are developed outside of CGIAR for markets in the focus countries, we plan to conduct research to answer the question: under what conditions will farmers adopt those new technologies (e.g. vegetable seeds) that lead to improved supply of healthier foods? Similarly, can value chain actors farther down the chain utilize new technologies (e.g. new cold storage technologies such as the Dearman Engine) profitably? These studies would be conducted as proof-of-concept research,potentially as RCTs. Therefore, the need from the research team is not to be the cold storage experts but rather to apply rigorous evaluation methods and metrics. We expect that some or a great deal of this work would take place in collaboration with the private sector. As noted in the proposal, we plan to use tools and metrics developed by FP3 of PIM in Phase I and to contribute to further development of value chain tools in Phase II.

Links to CGIAR

We anticipate that some of the innovations and/or interventions to be tested would be from work of other AFS-CRPS (e.g., on pulses, fruits, animal-source foods) or even from within A4NH (e.g., biofortified foods and food products). In these cases, we would work with researchers in those CRPs to conduct the evaluations.

CoA3

CoA3 is designed to use the lessons from CoA1 and CoA2 to find ways to scale up effective innovations or interventions, and to find ways to work through public-private partnership (PPPs) projects or platforms to anchor innovations in the food system, particularly in policy. Specific research questions on scaling up (Box 2.1.6, research question 2) are dependent on results from CoA2's evaluations, but will likely focus on identifying and quantifying how costs and benefits are likely to differ as an innovation moves from pilot to delivery at scale. We will experiment with methods of anticipating expected benefits that are being developed and tested in FP3 of PIM (Gechter 2016).

To address research questions on anchoring changes in food systems (Box 2.1.6, research questions 1 and 4), either through policy or through agri-food businesses, key stakeholders in the food system, from both a policy and a private sector perspective, will be identified, analyzed, and approached to be part of participatory scenario analysis. In this context, research will be guided through ideas developed at Wageningen UR about the development of multi-stakeholder partnerships (see also Schut et al. 2014). To this point, such partnerships have not been used for furthering nutrition and health, but a relevant example is a partnership developed between 18 South African NGOs to improve the well-being of young children (Reeler 2013). Throughout the processes, monitoring will occur to ensure that lessons about the development of improved processes are documented so that they can be used for enabling changes in food systems elsewhere.

Point #3: A much stronger justification of the CRP's comparative advantage in some specific areas of work, e.g., WASH, malaria prevention and treatment, is needed or possibly reconsideration in the agenda, depending on the strength of the justification.

There may be a misunderstanding. A4NH does not propose to launch WASH or malaria control public health interventions. However, in any cross-sectoral research there will be areas of overlap. For example, program evaluations conducted by researchers in FP4 have shown that it is important to include agriculture, nutrition and health good practice in behavior change communication (BCC) strategies to improve nutritional status among vulnerable populations. In our ongoing collaboration with Helen Keller International (HKI) to evaluate their Enhanced Homestead Food Production (EHFP) programs, the first evaluation of that program in Burkina Faso identified sub-optimal WASH practices as potential inhibitors to optimal program impacts on nutrition outcomes and suggested that HKI include a WASH component in the next phase of their EHFP program in Burkina Faso. HKI did so, and this was evaluated in an RCT in which we compared program impacts among beneficiaries who received the standard EHFP program, which includes agriculture and nutrition components, to the EHFP program *plus* a WASH component. Initial analyses have shown that the addition of the WASH component significantly reduced the prevalence of anemia among young children in addition to the reduction in anemia that was found in the EHFP group (unpublished results).

We have slightly modified the text in the FP4 section to bring additional nuance. The new text emphasizes that we will not launch a whole new area of research involving WASH or the prevention and treatment of malaria, but we will try to ensure that beneficiaries from agriculture interventions/programs/investments have access to all their minimum basic needs to live a healthy and productive and reproductive life. Appropriate access to water and sanitation services, hygiene knowledge, and access to health services to prevent and treat malaria are all essential inputs that are needed to protect health and ensure that gains in income and access to food, and information effectively lead to better diets, which in turn are used optimally by the body for growth, development, reproduction and health.

With respect to FP5, where there is explicit research relevant to malaria, and more general work on diseases in agricultural landscapes, we do not propose to undertake any public health research. Our focus will be on working with farmers on formative research and experimentation in agricultural production systems to improve livelihoods while reducing mosquito abundance, pesticide resistance and disease transmission. We will *collaborate* with health experts to (1) study the underlying the biological and social mechanisms driving agriculturally-related vector borne diseases, (2) design complementary agricultural and public health interventions, and (3) measure agricultural and health outcomes. The CGIAR comparative advantage is its regional research capacity in irrigated rice systems in Africa (for malaria) and Asia (for Japanese encephalitis), its strong track record of research with proposed partners on malaria in rice systems, and its new partnership with leading public health research institutes, convened by the London School of Hygiene and Tropical Medicine (LSHTM). CGIAR funds will support the agricultural intervention research and public health funding will support research on public health interventions conducted by public health researchers.

Additions, changes, and/or corrections A4NH made to the Full Proposal

Note: Minor changes have been made to different parts of the A4NH Full Proposal and have been documented in detail as requested. The length of this list may suggest that a lot of changes have been made, but in many cases, if one change was made, several other sections had to be updated for consistency. As an example, we made changes to 3. PIM Table D, but this meant we needed to update every reference to our outcomes and outcome milestones throughout the proposal.

1. A4NH Cover Letter	**Pages**
We updated the cover letter to reflect today's submission date and to mention the additional pieces that have been added to the Full Proposal, specifically the management support costs table that was requested as part of CRP Budget Narrative Section 1.1.4 and the new annex to help reviewers from the Fund Effectiveness Working Group (FEWG) locate where in the Full Proposal they can find information that satisfies the FEWG criteria.	**3-4**
2. A4NH CRP Narrative Section 1.0.2 Goals, Objectives, Targets	
References to the flagship outcomes were updated to reflect changes made to PIM Table B (see below for more info on changes).	**8-9**
2. A4NH CRP Budget Narrative Section 1.1	
CRP Budget Narrative Sections 1.1.2, 1.1.3, 1.1.4, and **1.1.6** To clarify the costs that are included in our Management and Support Costs (MSC) budget, we added a detailed budget table describing the MSC budget components to **CRP Budget Narrative Section 1.1.4**. In this process, we reviewed management and cross-cutting budgets and a few small adjustments were made to line items (<1%) in the budget tables in **CRP Budget Narrative Sections 1.1.2, 1.1.3**, and **1.1.6**.	**31-36**
2. A4NH FP Narratives – Sections 2.(1).1.2 Objectives and targets and **2.(1).1.6 Clusters of Activity**	
To ensure consistency, for all flagships, we made changes to Sections **2.1**.1.2 Objectives and targets and Sections **2.1**.1.6 Clusters of Activity to match changes that were made to the outcomes and milestones from PIM Tables B and D. Across the flagships, these sections are: **2.2**.1.2 and **2.2**.1.6, **2.3**.1.2 and **2.3**.1.6, **2.4**.1.2 and **2.4**.1.6, and **2.5**.1.2 and **2.5**.1.6,	See sections
2. A4NH FP Narrative 2.1 for Food Systems for Healthier Diets	
Section 2.1.1.2 Objectives and targets and **Section 2.1.1.4 Science quality** We revised **Figures 2.1.2**, **2.1.3**, and **2.1.4** to reflect the latest thinking on the expected outputs for this flagship.	**41, 44-45**
2. A4NH FP Narrative 2.4 for SPEAR	
Section 2.4.1.1 Rationale, scope In response to this comment from the ISPC – *However, the rationale and scope as currently written sound rather dated: "there is little evidence that agricultural interventions are benefiting nutrition…', and "there is a disconnect between agriculture and nutrition". Surely we have learned much in the last six years that takes us beyond those statements* - we changed the text to reflect what has been learned over the last years, though we maintain there remains a disconnect that generates important research questions for SPEAR, as described.	**107**
Section 2.4.1.1 Rationale, scope and **Section 2.4.1.6 Clusters of activity (CoA)** In response to this comment from the ISPC, which begins - *A much stronger justification of the CRP's comparative advantage in some specific areas of work, e.g., WASH, malaria prevention and treatment, is needed or possibly reconsideration in the agenda, depending on the strength of the justification* - we changed the text to emphasize that we are not proposing a new area of research on WASH or the prevention and treatment of malaria. A much stronger justification of the CRP's comparative advantage in some specific areas of work, e.g., WASH, malaria prevention and treatment, is needed or possibly reconsideration in the agenda, depending on the strength of the justification…CoA1 of FP4	**107-108, 116-117**

states that it will "incorporate WASH, optimal management of human and animal faeces, aflatoxin (with the International Livestock Research Institute [ILRI]), and malaria prevention and treatment in agricultural programs to maximize potential impacts on nutrition through reductions in disease burdens. At a time of declining W1/W2 funds, a good case needs to be made for the CGIAR to invest in areas such as malaria prevention and treatment where it has not been historically active or does not have a comparative advantage. Clearly, such work would focus on "unintended consequences of agricultural activity", e.g., if promotion of livestock concentration in certain environments serves to increase mosquito populations leading to rising malaria incidence, the agricultural approach may have to be modified or complemented by work from other sectors – it is not for the CGIAR to undertake the latter.	
Section 2.4.1.5 Lessons learnt and unintended consequences We made changes to this section to address concerns raised in point #1 in our addendum.	**115**
Section 2.4.1.6 Clusters of activity (CoA) In response to this comment from the ISPC - *Elucidating the clear value added in the additional work proposed in these areas and countries under SPEAR (which has a very large budget) would strengthen the proposal* – we updated the text to explain that first, we will be expanding to several countries in which earlier consortia/partnerships have not been active. In fact, of the 10 proposed SPEAR countries for Phase II, the main focus for earlier policy and enabling environment work was located in 3 countries -- Bangladesh, Ethiopia and India. Second, these are all large countries, for which we have signaled the need to investigate sub-national policy environments and progressively move to a focus on implementation challenges, as described. Phase I work was mainly focused on higher-level awareness of agriculture-nutrition links (or lack thereof), political commitment, policy changes and decisions, multisectoral coordination. In Phase II we have a chance to draw upon lessons learned in Phase I in these 3 countries. Third, Phase II will involve stronger links between CoA1 and CoA3 – CoA2 will seek to understand the challenges and opportunities for bringing new program-related evidence (from CoA1) into policy discourse and action. As mentioned in section 2.4.1.6: "[CoA2] is essential for understanding where further political or policy leverage might be applied to the technical leverage gained from our work." CoA2 will work with CoA3 to maximize engagement with key stakeholders as well as being responsive to demand for certain types of evidence from these stakeholders. Finally, of the 3 core activities described in CoA2, the predominant focus in Phase I was on the first ("Understanding"). Phase II CoA2 work will build on this progress to progressively move into the Operationalizing and Evaluating stages.	**116-117**
Section 2.4.1.7 Partnerships and **Section 2.4.1.12 FP management** In response to this comment from ISPC – *while IFPRI has substantial capacity in this area, the same cannot be said for IDS, as a co-leader of CoA2. University of Antwerp's work in this area is also not well known* – we respectfully disagree with the comment about IDS. The Institute of Development Studies (IDS) is a leading global institution for development research, teaching and learning, and impact and communications, based at the University of Sussex in the UK. IDS enjoys an international reputation for applying academic skills to real-world challenges. Home to approximately 100 researchers, 70 knowledge services staff, 65 professional staff, and about 200 students, IDS was ranked no. 1 for Development Studies, along with the School of Global Studies at the University of Sussex, in the QS World University Rankings in 2015. Through its leadership in initiatives like the Future Agricultures Consortium and the STEPS Centre and participation in Transform Nutrition, LANSA, and the Global Nutrition Report, IDS brings considerable interdisciplinary expertise and experience in the analysis of policy processes and the political economy of agricultural policy, as well as in nutrition and health policy via its leading researchers in political science, anthropology and geography. Not only are these skills valuable assets for the types of work proposed in CoA2 (SCORE), the key researchers in IDS already have a strong track record, and there already exist active and well-functioning partnerships between IFPRI and IDS that can be built upon. With regard to the comment about the University of Antwerp, we emphasize (and further clarify in the proposal) that the core partnership is with the Evident Network (hosted by the Institute of Tropical Medicine). The Evidence-informed Decision-making in Nutrition and Health	**120, 123-124, 126**

(EVIDENT) partnership http://www.evident-network.org/about/ is a well-established international hub created to strengthen capacities to address the disparity between research and local needs in nutrition and health in Africa. The modus operandi involves empowering stakeholders to identify and prioritize their key nutrition and health concerns and, providing them with a platform where these can be addressed. These needs are addressed by systematically reviewing and appraising evidence and contextualizing it using additional cultural and economic data. This process ensures societal relevance so that decision-makers can make recommendations for policies adapted to their local context. Co-leaders of CoA3 (Namukolo Covic (IFPRI) and Roos Verstraeten (ITM)) have worked together well in the past. Covic has been a facilitator of the African Nutrition Leadership Programme (ANLP) since 2008 (as well as having been project director for the ANLP nutrition leadership development training program implemented for the National Food and Nutrition Commission of Zambia from 2013-2014). Verstraeten is coordinator in the European Nutrition Leadership Programme (ENLP) and is working closely with Covic in developing a global nutrition leadership program that leverages the experiences of the ANLP and ENLP. Verstraeten is project coordinator for EVIDENT on which she is collaborating with Covic on the EVIDENT Africa component. For consistency, all references to the University of Antwerp were changed to the EVIDENT network in **Section 2.4.2 Flagship Budget Narrative**, including **Section 2.4.2.2 Summary** and **2.4.2.3 Additional explanations for certain accounting categories**	
3. A4NH PIM (Performance Indicator Matrix) Table B and Table D	
We did not change the number of outcomes in PIM Table B for any flagship nor did we make any changes to the dollar amounts. The language of outcomes for FP1: Food Systems (outcomes 2 and 3), FP3: Food Safety (outcome 1), and FP4: SPEAR (outcome 4) was modified slightly in order to be more specific. For all five flagships, we modified the milestones in PIM Table D to make them specific and measurable. In some cases, only language has been revised and in other cases the number of milestones for Phase II may have changed in number. As a result, the means of verification for most have been revised.	4, 6-8, 11-15, 16, 18-22, 23, 27-32, 35-37
4. A4NH Annex 3.3 Gender Annex	
In Table 1, which highlighted a selection of milestones related to gender research from PIM Table D, we updated it with the revised milestones.	25
4. A4NH Annex 3.8 Open Access	
In response to comments from the CO, minor changes have been made to Annex 3.8 to clarify the process for harmonizing standards for open access/open data (OA/OD) through the A4NH Planning and Management Committee (PMC) and the role of Managing Partners in linking to the standards managed by IFPRI's Knowledge Management team. Further details on funding and allocation of FTEs for OA/OD concerns will be done by the PMC as part of the 2017 plan of work and budget following the CGIAR 2017 Financing Plan.	136, 138
4. A4NH Annex 3.9 Intellectual Assets	
In response to comments from the CO, minor changes have been made to Annex 3.9 to provide more details on our overall intellectual management (IA) management approach in the first section. Some additional considerations for the role of IA in dissemination have been added to Table 1. The indicative budget we provided has been retained. Detailed budgets and staff time allocations will be developed as part of the 2017 plan of work and budget following the CGIAR 2017 Financing Plan.	140, 142-143
4. A4NH Annex 3.10.4 Country-Specific Materials	
To reduce the total size of the Annexes, we have removed the files that were part of Annex 3.10.4 Country-Specific Materials and instead included a link to our web site where the materials prepared for the 2015-2016 Site Integration meetings can be downloaded.	167

4. A4NH Annex 3.10.7 Explanatory Note on the Performance Indicator Matrix Tables	
In our explanation of A4NH's contribution to the CGIAR 2022 target: 10% reduction in women of reproductive age who are consuming less than the adequate number of food groups, we mistakenly said, "A4NH aims to contribute to a 10% reduction in women of reproductive age who are consuming less than the adequate number of food groups in the each of the four priority countries of FP1: Food Systems for Healthier Diets – Bangladesh, Ethiopia, India and Vietnam." The sentence has been revised to correctly state the four priority countries of FP1 as: Bangladesh, Ethiopia, **Nigeria**, and Vietnam.	179
4. A4NH Annex 3.10.8 References	
Two 2016 references were added to the list for FP4: SPEAR.	193-194
4. A4NH Annex 3.10.9 Fund Effectiveness Working Group (FEWG) criteria	
In anticipation of additional reviews relative to criteria proposed by the Fund Effectiveness Working Group, (FEWG), (criteria were circulated in draft form), A4NH provided a matrix of the draft criteria and the sections of the A4NH Full Proposal where relevant information can be found. As the proposal was not structured relative to these criteria, there is not always an identifiable section that be specifically linked to the individual criteria. Hopefully, this will help reviewers identify relevant information, as best as possible.	203

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