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The U.S. Government's Global Hunger & Food Security Initiative

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Image: David Bjorgen

Supporting Optimal Infant, Young Child and Maternal Nutrition and Health in Jordan

Leader with
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Feed the Future Innovation Lab for Nutrition,
Tufts University, Friedman School of Nutrition Science
and Policy

Feed the Future Innovation Lab for Nutrition
Annual Report
Fiscal Year 2020 (Year 1)

Jordan Management Entity Information

Tufts University's Friedman School of Nutrition Science and Policy is the Management Entity (ME) for the Feed the Future Innovation Lab for Nutrition (hereafter called the Nutrition Innovation Lab) in Jordan. The Nutrition Innovation Lab's core activities are funded under cooperative agreement AID-OAA-L-10-00006 from the United States Agency for International Development (USAID). Additional work is funded through USAID/Jordan associate award number 72027820LA00003.

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Acronyms

CHN	Community Health Nutrition
CI	Confidence Interval
DHS	Demographic Health Surveys
DMP	Data Management Plan
DoS	Department of Statistics
EMMP	Environmental Management and Mitigation Plan
EOI	Expression of Interest
HCAC	Health Care Accreditation Council
HIES	Household Income Expenditure Surveys
IE	Impact Evaluation
IEE	Initial Environmental Evaluation
IFH	King Hussein Foundation Institute of Family Health
IPC	Interpersonal Communication
IYCF	Infants Young Child Feeding
ME	Management Entity
MEL	Monitoring, Evaluation and Learning
MIYCN	Maternal Infant Young Child Nutrition
M&E	Monitoring and Evaluation
NDF	Nutrient dense foods
OR	Odds Ratio
OVPR	Office of Vice Provost for Research
PD	Program Description
PHFP	Partnership for Health and Family Planning
PLW	pregnant and lactating women
PPFP	post-partum family planning
RA	Research Assistant
RFA	Request for Applications
RHAS	Royal Health Awareness Society
SBER	Social Behavioral Ethical Research
UPF	Ultra-processed foods
USAID	United States Agency for International Development

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I) Executive Summary

The Nutrition Innovation Lab in Jordan aims to conduct research and build capacity to support optimal health and nutritional status of pregnant and lactating women (PLW) and children under two in Jordan. The objectives include: 1) to plan and implement a rigorous research agenda, including a secondary analysis utilizing existing data and an impact evaluation of USAID's Community Health and Nutrition (CHN) program, and, 2) to build individual and institutional capacity in Jordan in the realm of maternal, infant and young child nutrition. While the project has not been able to roll out due to COVID restrictions, the Nutrition Innovation Lab has engaged and collaborated with USAID/Jordan and the implementing partners of the CHN program (FHI 360). The Nutrition Innovation Lab has also worked towards starting up several activities including the secondary analysis and the planning/development of the protocol of the impact evaluation.

From February 2020 through September 2020, the Nutrition Innovation Lab analyzed secondary multi-year data from the Jordan Demographic Health Surveys (DHS) from 1997 through 2017and Household Income Expenditure Survey (HIES) from 2002 through 2013. The Nutrition Innovation Lab has been in extensive interactions with FHI 360 and the CHN program team in Jordan and in the United States to develop the impact evaluation protocol and questionnaire tools. In addition, the Lab developed an expression of interest and an RFA to identify a core partner and in-country stakeholders in Jordan.

Two graduate research assistants (RAs) have joined the ME team. One is a new PhD student, who leads the impact evaluation protocol. The other graduate student is based in Amman, Jordan, has extensive experience working in the country, and speaks fluent Arabic. The RA in Jordan has been instrumental in performing a remote stakeholder mapping and interacting with potential stakeholders and experts in the field of maternal and infant young child nutrition in Jordan. Three presentations were made during FY2020 to introduce the Jordan Nutrition Innovation Lab project to USAID/Jordan implementing partners, CHN implementing partners, and a group of nutrition specialists and experts in Jordan.

Despite the travel restrictions and the inability to undertake key planning activities, the ME team working from home has been successful in maintaining remote engagement with the USAID/Jordan colleagues, CHN program team (FHI 360), and potential partners, experts and stakeholders throughout the fiscal year.

II) Program Overview and Structure

The goal of the Nutrition Innovation Lab is to conduct research and build capacity to support optimal health and nutritional status of pregnant and lactating women (PLW) and children under two in Jordan. The objectives include: 1) to plan and implement a rigorous research agenda and, 2) to build individual and institutional capacity in Jordan in the realm of maternal, infant and young child nutrition.

Figure 1 outlines the Theory of Change for the Nutrition Innovation Lab activities in Jordan.

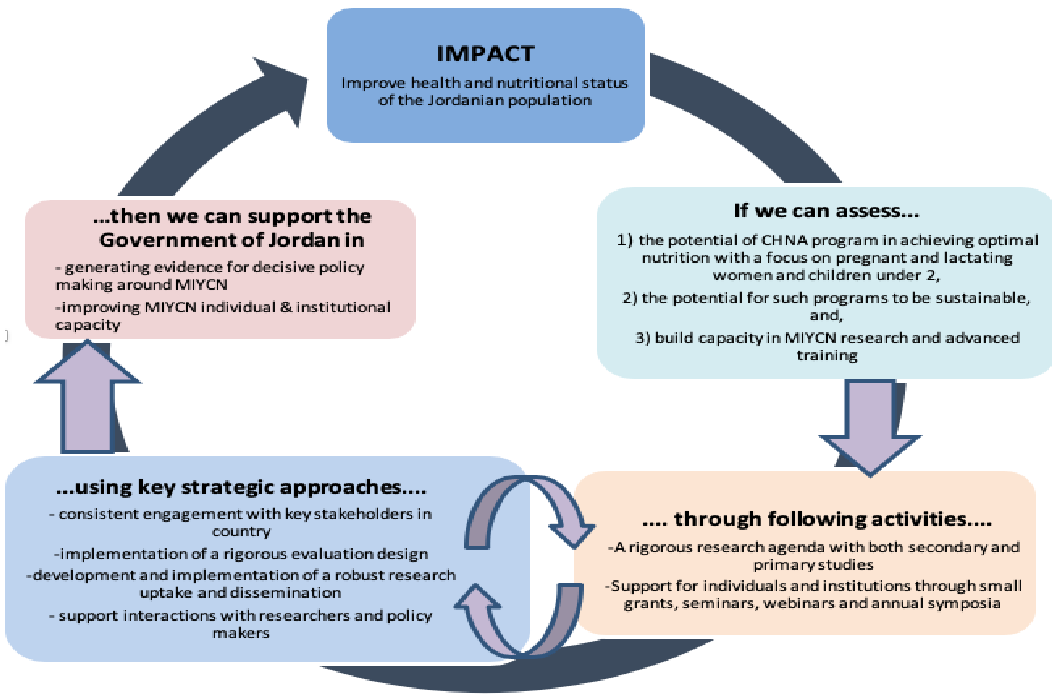


Figure 1: Theory of Change Framework

Objective 1: Develop and implement a rigorous research agenda around MIYCN

Through this objective, the Nutrition Innovation Lab aims to generate evidence on the importance of maternal, infant young child nutrition (MIYCN) in improving health and nutritional status through the implementation of secondary and primary analysis studies. The first activity under objective 1 is a secondary analysis of the Jordan Demographic and Health Surveys and the Household Income and Expenditure Surveys. The secondary analysis includes a literature review and data analysis to assess complementary feeding practices and food choices by region, socioeconomic status, and education levels. The analysis uses multiple years of data to assess trends and patterns, including change over time.

The second activity under this objective is the planning and implementation of a rigorous evaluation (impact, process and performance) of the CHN program. The CHN program aims to improve the nutritional status of PLW and children under the age of two. It aims to achieve this through measurable improvements in MIYCN and post-partum family planning (PPFP).

The Nutrition Innovation Lab is planning a comprehensive, robust, and rigorous evaluation of CHN. The evaluation includes three components. First, a rigorous quantitative impact evaluation, which is being designed in collaboration with the USAID Mission and engagement with the implementing partner, will evaluate the impact of the CHN program on key MIYCN indicators. Second, a performance evaluation using mixed methods approaches aims to (a) determine if the program was implemented as planned (fidelity to design), and (b) identify barriers and facilitators of program processes and performance. The third component includes a qualitative and quantitative assessment of the sustainability of programmatic actions implemented by the CHN program, based on learning and best practice, and an assessment of the adequacy of resources, capacities, motivation and linkages.

Objective II: Support Jordan's MIYCN individual and institutional capacity building

The Nutrition Innovation Lab aims to work closely with in-country stakeholders including the Government of Jordan, USAID/Jordan, the CHN program and university partners to enhance individual academic capacity by implementing a fellowship program for faculty and students of academic institutions in Jordan.

In collaboration with the Government of Jordan and Jordanian academic institutions, the Nutrition Innovation Lab aims to host an annual scientific symposium in Jordan. The annual symposium will promote sharing, understanding, and adoption of concrete evidence on MIYCN practices, and will generate awareness at the policy, program and academic levels on the link between maternal, IYCF practices, nutrition outcomes and risks of non-communicable diseases in later life. The first scientific symposium will be held in Year 2 of the project. Successive symposia will serve as a platform for dissemination of the empirical findings of the CHN program evaluation and/or from additional ongoing research.

Linking academic research and evidence with policy is a critical objective of the Nutrition Innovation Lab. In collaboration with Jordanian policymakers, program specialists, and academic institutions, the Nutrition Innovation Lab will offer seminars and guest lectures on the linkages between sub-optimal feeding (breast and complementary feeding) and risks of non-communicable diseases in later life. Opportunities to conduct online webinars within Jordan and from outside Jordan will be explored. Policy panels and learning lab sessions during the scientific symposia will provide a platform to link academic findings to real life policy issues. The project will develop policy briefs based on the research findings to support in-country policy discourse and use the dissemination opportunities for fellowship recipients to present the findings of their work.

To achieve its objectives and activities, the Nutrition Innovation Lab employs following strategic approaches:

- Engage consistently with USAID/Jordan, the CHN activity implementers, key Jordanian stakeholders to ensure appropriate feedback across both sets of activities
- Engage closely with FHI 360 (program implementer of CHN) and USAID/Jordan to assess and determine the most appropriate approach to evaluation and assessment
- Adopt a rigorous, relevant, and feasible evaluation design that gives due consideration to all aspects of the CHN program (project objectives and outcomes, impact, fidelity, program impact pathways, etc.)
- Develop and implement the impacts, process, and performance evaluations closely linked with the CHN program implementation timelines
- Utilize a research uptake strategy to ensure appropriate policy engagement at all levels. Wide stakeholder engagement is critical for the successful implementation and uptake of the findings of this project. Research uptake will include interactions with stakeholders at multiple levels to promote translation of results at the national (policymakers, implementers), individual (academics), & sub-national (local health officials, frontline workers, program implementers) levels.
- Adopt an approach that will support interactions of policy makers and researchers, thereby enhancing individual and institutional research capacity building activities. Identifying key stakeholders and core partners to engage in the capacity building activities will be critical, and the Nutrition Innovation Lab will engage with USAID/Jordan, researchers/academics, policy makers, bilateral agencies and implementing partners across different sectors to ensure maximal impact of the research and capacity building activities.

III) Post-Award Reporting Requirements

Following the award and the post-award orientation on February 12, 2020, the Nutrition Innovation Lab worked on fulfilling the post-award requirements. These included the development of a project specific Grants Manual, a theory of change (ToC) model, a logic model and an Activity Monitoring, Evaluation and Learning (MEL) plan. In addition, an annual implementation plan (through September 2021) was developed. All documentation was submitted to the USAID AOR Joanna Michler, received feedback, and was approved. USAID/Jordan recommended that the annual implementation plan be extended through September 2021 and be aligned with the workplan of CHN. The team is currently working on finalizing the timeline with CHN and hopes to have a final draft of the FY 2021 workplan to the Mission for review by February 1, 2021. In addition to submitting fiscal and administrative documentation, during FY 2020, the Nutrition Innovation Lab requested a merger of the two sub-awards into one. The Nutrition Innovation Lab is working closely with the Mission OAA and the AOR in finalizing this modification to the PD.

With the ongoing pandemic, the uncertainties surrounding travel and in-country access have been a rate limiting factor. In order to overcome this challenge, the Nutrition

Innovation Lab has extensively worked with the CHN/FHI 360 to streamline a realistic program implementation timeline, which includes the rollout of the baseline impact evaluation (IE) survey and the CHN program components.

IV) Key Accomplishments

<u>Objective I: Develop and implement a rigorous research agenda around MIYCN</u>

In FY2020, the Nutrition Innovation Lab continued specific activities under objective 1, which included:

I. Secondary data analysis of existing data

Description:
Secondary analysis of existing data continued to generate evidence on complementary feeding practices in infants and young children in Jordan throughout the reporting period. A critical need identified through the Nutrition Innovation Lab's literature review was the lack of information on complementary feeding practices in Jordan. While there is emerging information on the issues related to early initiation of breastfeeding, exclusive and continued breastfeeding, and the barriers associated with them, there is little information on what, when, and how a mother chooses the first foods. Additionally, little is known about the relationship of consumption of ultra-processed foods such as cookies, chips and sugar sweetened beverages versus consumption of nutrient-dense foods and continued breastfeeding.

With this critical finding from the literature review, the Nutrition Innovation Lab team at Tufts University developed an analysis plan to assess the complementary feeding practices and food choices in children between 6-24 months by region, socio-economic status and education levels as well as the expenditure practices of households with children under 2 years of age, with particular emphasis on the consumption of ultra-processed foods and sugar sweetened beverages. With USAID/Jordan's support, two nationally representative, multi-year data sets (Demographic Health Surveys and Household Income Expenditure Surveys) were obtained from the Jordan Department of Statistics (DoS), which provided information on IYCF practices, diets in the first 24 months of life and consumption/expenditure practices around ultra-processed foods and sugar sweetened beverages. This study was approved by the Tufts University Social Behavioral Ethical Research (SBER) committee in April 2020.

Accomplishments:
<u>Preliminary findings</u>: The team has been able to download all the DHS data sets and received IRB approval for the secondary analysis. The Nutrition Innovation Lab has conducted the analysis using six rounds of Demographic Health Surveys (DHS) data between 1990 and 2018 (1990, 1997, 2002, 2007, 2012, and 2017-2018). A key finding from the assessment is that there has been an overall and steady increase in consumption of infant formula or animal milk by children under the age of 6 months over time. In 1990, only 26% of children under 6 months consumed infant formula or milk, but

by 2018 this proportion has doubled to 51% The shift in consumption has been primarily due to increasing infant formula usage. After assessing the consumption of sugar sweetened beverages such as fruit juices, the Nutrition Innovation Lab found that while consumption has varied over time, it remains steady at around 10% of children consuming juice in 2018.

After adjusting for child's age in months, geographic location (governorate and urban/rural), and mother's educational attainment, infants under 6 months of age were 3.7 times more likely to have consumed formula or milk in 2018 compared to 1990 (OR=3.67, CI=2.74, 4.91). Compared to children under 6 months living in Amman, those living in Zarqa were 30% less likely to consume formula or milk (OR=0.69, CI=0.51, 0.93), while children in Karak were 2 times more likely than children in Amman to consume formula or milk (OR=2.07, CI=1.46, 2.95). This increase in consumption of infant formula and animal milk goes hand in hand with the decrease in rates of exclusive breastfeeding for 6 months, as well as the short median duration of exclusive breastfeeding.

Key Challenges:

A key challenge that the team has faced in conducting more focused food group analysis is the lack of data on ultra-processed foods and sugar sweetened beverages in the DHS modules. There is very little data on what the infants are specifically consuming. What is known (and has been reported in the DHS), is that the infants and young children are not meeting their minimum diet quality needs. However, given the lack of undernutrition in this population, it is likely that the infants are being fed food items that are not documented in the DHS diet modules for IYCF. To address this, the Nutrition Innovation Lab had hoped to analyze food expenditure data from the Household Income and Expenditure survey. However, a delay in obtaining access to those datasets slowed this process. This was partly due to the ongoing pandemic and limited access to DoS. However, with tremendous support from USAID/Jordan colleagues in facilitating the interactions with DoS colleagues, the Nutrition Innovation Lab has successfully received the datasets (on 50% sub-sample) from the DoS as per its data sharing guidelines.

Way Forward:

Additional analysis and interpretation of model specifications are ongoing (in infants under 6 months of age and infants 6-23 months of age). In early October 2020, the team received HIES datasets from the DoS and has started analyzing the series of HIES data to assess trends/patterns and changes in expenditure on defined ultra-processed foods and sugar sweetened beverages, particularly in households with children under 2 years of age. In addition, assessment of the share of total expenditure on ultra-processed foods (UPF) versus nutrient-dense foods (NDF) such as animal source foods, fruits, vegetables (e.g. dark green leafy vegetables, Vitamin A rich vegetables) and the association between share of expenditure on UPFs versus NDFs will also be performed using the HIES data (particularly in those households that have children under 2 years of age). These critical findings will be incorporated in the report and shared with USAID/Jordan and key stakeholders, and a manuscript will be submitted to a peer-review journal for dissemination to a global audience.

2. Development of CHN program Impact Evaluation (IE)

Description:

The CHN evaluation focuses on impact, process, and performance, and aims to provide evidence to support current and future programming priorities of USAID Jordan. The evaluation involves 1) a quantitative impact evaluation, 2) a qualitative and quantitative process and performance evaluation, and 3) and a qualitative and quantitative assessment of program sustainability. The evaluation focuses on four districts in three governorates of Jordan (Amman, Karak, and Zarqa) where the CHN program will be implementing both community and facility-based components of its activities.

Accomplishments:

Through FY2020, the Nutrition Innovation Lab team actively engaged with the Mission colleagues and FHI 360 to develop an in-depth understanding of the program design and the process of development of the implementation by the program. The Nutrition Innovation Lab began engagement with FHI 360 in the co-creation stages (February-March 2020), and since then has held several virtual meetings and maintained consistent email communications with the program in order to collate information and discuss possibilities of utilizing various evaluation designs.

CHN and the Nutrition Innovation Lab held a two-day intensive workshop on August 17-18, 2020 (see Appendix 2). The objectives were as follows:

1. Develop a shared understanding of the CHN Project and the Nutrition Innovation Lab's scope of work in Jordan
2. Achieve broad understanding and agreement around roles, responsibilities, and outstanding questions
3. Agree to an evaluation approach and timetable, with focus on baseline
4. Agree on workflows and next steps

The workshop was attended by colleagues at the USAID/Jordan, Nutrition Innovation Lab, FHI 360, Health Care Accreditation Council (HCAC), King Hussein Foundation Institute of Family Health (IFH), Partnership for Health and Family Planning (PHFP), and Royal Health Awareness Society (RHAS). Based on the understanding of the program design and to ensure practicality yet maintain a robust evaluation design, the Nutrition Innovation Lab has proposed a repeat cross sectional or a longitudinal study design that will follow multiparous women (having borne more than one child) in early pregnancy or during lactation at baseline, and collect data on past pregnancy and MIYCN-PPFP practices. The follow-ups at postpartum (midline/end line evaluation) will allow comparing past practices to the present practices (MIYCN-PPFP practices during the antenatal and post-partum).

Following the workshop, the Nutrition Innovation Lab has been working collaboratively with CHN team in the key areas below:

a. Documentation of key program related information to develop a design for the impact evaluation. This process has been ongoing through weekly and bi-weekly technical interactions with CHN to understand in detail the two key components of the program: the social franchise model and the social movement components. Further discussions on targeting strategies for interpersonal communications (IPC) and simultaneous rollout of social franchise model and IPC components of the CHN activity is ongoing. Based on this information, the Nutrition Innovation Lab is in the process of drafting the evaluation protocol and study tools. Upon completion, the protocol and other study tools will be submitted to the Tufts University Institutional Review Board (IRB) and Jordan Ministry of health IRB by the end of January 2021. However, the timeline for implementation of the baseline surveys will depend on the pandemic situation in Jordan. The team will periodically assess the situation and plan for the survey accordingly.

b. Discussions and development of the logic framework of the CHN activity has been initiated by the Nutrition Innovation Lab. This is critical in the development of the study tools for the process and performance evaluation.
c. Discussions to streamline timelines of the program rollout and IE data collection for efficient implementation of program and research activities is ongoing. Based on the outcomes of the discussion, the annual implementation plan will be updated and shared with USAID/Jordan for approval.
d. Discussion on development of a data management structure for sharing of clean evaluation and program monitoring and evaluation (M&E). The interactions have been ongoing with the CHN M&E specialist to strategically develop a data management and sharing structure for both parties.

Key Challenges

One of the key challenges for the Nutrition Innovation Lab has been the ambiguity in the key program components of the CHN activities. While the CHN/FHI 360 team has been very helpful and responsive in sharing the theory of change, strategic objectives and Activity MEL plan for CHN, it is still in the process of developing and distilling its key program components, particularly the social franchise model and IPC/Social behavioral components. The lack of technical details has been a rate limiting factor for the Nutrition Innovation Lab in finalizing the IE design, and subsequently in the development of the evaluation protocol and study tools. Both parties have been significantly impacted due to the ongoing pandemic, resulting in significant delays in the workplan. Nonetheless, both parties have continued to collaborate and coordinate to expedite the activities and overcome the challenges. This has been achieved through a regular bi-weekly technical team meeting between the two teams to streamline and develop realistic strategies for implementation of the CHN program and impact evaluation activities.

Way Forward

In FY2021, the Nutrition Innovation Lab will continue to collaborate with FHI 360/CHN team to finalize the IE design and evaluation documents. The documents will be submitted to ethical committees at Tufts University and Jordan Ministry of Health to ethical clearance. The team will aim to successfully conduct the baseline IE survey, conduct analysis and share the findings in the form of reports and manuscripts.

Presentations

Presenter	Event	Location	Topic	Date	Audience
Shibani Ghosh	Introduction: Jordan Nutrition Innovation Lab	Zoom Conference (Online)	Introduction: Jordan Nutrition Innovation Lab	07/07/2020	9
Shibani Ghosh/Robin Shrestha	CHN-NIL Retreat	Zoom Conference (Online)	Jordan project overview, research approach & planned activities	08/18/2020	19
Shibani Ghosh	USAID/Jordan Health IP meeting	Google Meet (Online)	Introduction to the Nutrition Innovation Lab in Jordan	09/13/2020	16

3. Adjunct Research Opportunity

The Nutrition Innovation Lab had an opportunity to submit a research proposal for an interdisciplinary project within Tufts University through an internal grant support by one of the University's philanthropic donors. The Nutrition Innovation Lab submitted a concept note followed by a full proposal in September 2020, and the research proposes a cross-sectional study that would be linked to the impact evaluation. The sub-study aims to assess the association between diets, metabolic inflammation, gut microbiota, and function in early pregnancy in Jordan. Given the higher rates of overweight and obesity in Jordanian reproductive-age women, this adjunct sub-study will provide a better understanding of diets in pregnancy and opportunities to intervene early to improve birth and growth outcomes in the early life of the children. The decision on the funding will be made by March of FY 21.

Objective 2: Support Jordan's MIYCN individual and institutional capacity building

In FY2020, the Nutrition Innovation Lab continued specific activities under objective 2, which included:

I. Stakeholders Mapping in Jordan

In FY2020, the Nutrition Innovation Lab hired a research assistant (RA) who is based in Jordan, speaks the local language and understands the country contexts. With the help of the RA, the Nutrition Innovation Lab was able to interact with potential stakeholders and experts in the field of maternal and infant young child nutrition. Some of the key institutions that the Nutrition Innovation Lab has interacted with so far include the Center for Strategic Studies, the University of Jordan, Jordanian Hashemite Fund for Human Development, JOHUD, etc.

The Nutrition Innovation Lab continued to engage with potential partners and stakeholders to support Jordan's IYCF agenda and capacity building. The team interacted about the project electronically with three registered dietitians in Jordan who have had extensive experience in the field of clinical nutrition and pediatric nutrition care, as well as building capacity of health care providers in Jordan. These interactions have provided a better understanding of nutrition landscape and IYCF practices in Jordan.

So far, the Nutrition Innovation Lab has compiled a list of two dozen stakeholders from academia, research institutions, development programs, Ministry of Health and other government agencies, hospitals, experts and individuals working in the field of maternal, infant and young child nutrition. This process will continue in FY2021.

2. Development of Call for Applications for a Fellowship Program

The Nutrition Lab has started developing a call for applications for fellowships (up to $5000) to be awarded competitively to Jordanian junior faculty and/or graduate students conducting their master's or PhD research on IYCF and public health nutrition. The calls will be placed in FY2021.

3. Linking Academic Research with Policy

The Nutrition Innovation Lab has recently begun planning for two webinar series. The concept notes and the theme of the webinars were shared with USAID/Jordan for review and feedback. The first webinar will focus on the national priorities and current trends in infant, young child and maternal nutrition and health status in Jordan, and introduce the USAID- supported Community Health and Nutrition (CHN) activity and highlight strategic objectives of the Jordan Nutrition Innovation Lab project, that includes 1) a rigorous impact evaluation of USAID's Community Health and Nutrition (CHN) activity, and, 2) individual and institutional capacity building activities in Jordan in the realm of maternal, infant and young child nutrition. The webinar is planned for March 2021.

The second webinar will center around the evidence base on IYCF and breastfeeding and regulatory issues around sugar sweetened beverages in Jordan and across the Middle East region. The findings from the webinar will be of relevance to technical officers within the government of Jordan, local government officials, and professionals within the nutrition and health sectors.

V) Governance of the Nutrition Innovation Lab

In FY2020, the Nutrition Innovation Lab continued its work on maintaining a collaborative and efficient organizational structure, both internally and externally.

Although much of this activity had to be done remotely, the Nutrition Innovation Lab made good progress in compiling a list of potential stakeholders and partners in-country and continued the process of identifying and adding internal and external partners and stakeholders in the structure.

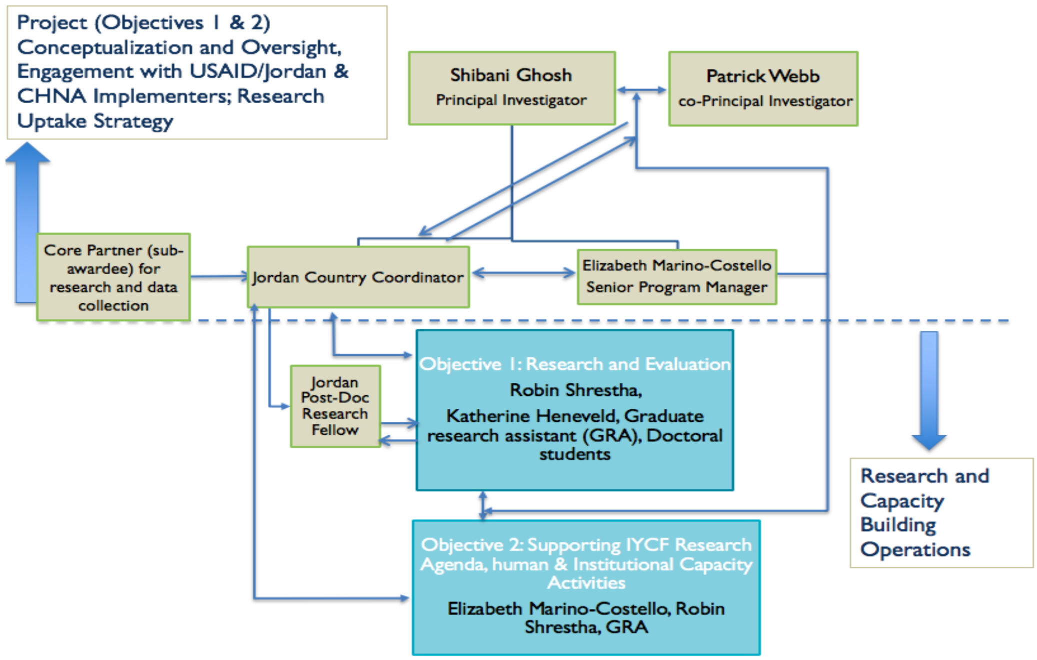
VI) Program Management Activity

The Nutrition Innovation Lab team at Tufts University is led by Shibani Ghosh, Associate Director of the Nutrition Innovation Lab, who serves as the Principal Investigator in collaboration with Patrick Webb, Director of the Nutrition Innovation Lab, who will serve as co-Principal Investigator. Both are faculty at the Friedman School and have significant experience working across different countries and cultural contexts. The PI and co-PI will be supported by Amman- and Boston-based teams. In Amman, the Nutrition Innovation Lab will hire a Jordan Country Coordinator and a Post-Doctoral Research Fellow. Both positions will be held by Jordanian nationals. In Boston, the team now includes Elizabeth Marino Costello (Senior Program Manager), Robin Shrestha (Project coordinator), Katherine Heneveld (Data Analyst), Justin Hackett (RA), and Kamal Kasturi (RA).

Due to the ongoing global pandemic, the Nutrition Innovation Lab was faced with significant planning and implementation challenges. The delays and postponement have led to delays in the following activities:

The first step in cementing the Nutrition Innovation Lab's presence is through identification of a Jordan-based core partner that also has a proven track record and ability to conduct evaluation research and deliver on both qualitative and quantitative data collection. Postponement of travel to Jordan means that the Nutrition Innovation Lab has not yet identified its core partner. This, in turn, has also further delayed the setting up of in-country office workspace and identification of personnel (country coordinator and research fellow), critical internal pieces to provide oversight of the project and plan for the implementation of research and capacity building activities, development of study protocol and tools, etc.

Despite these challenges, in early October the Nutrition Innovation Lab was able to start the process of identifying a key partner institution in Jordan. As the first step, a call for expression of interest (EOI) has been posted in the official website of the Nutrition Innovation Lab. The EOI call has been shared with all stakeholders identified from the mapping activity. As a second step, the Nutrition Innovation Lab will review the EOI applications and select 2 to 3 potential applications competitively. The Nutrition Innovation Lab will then organize a co-creation workshop to discuss the technical details of the evaluation and capacity building activities (in particular, the annual scientific symposia). As the final step of the process, the applicants will then be invited to submit a request for application (RFA) and will be subsequently evaluated and selected based on the RFA. The entire process will complete by March 2021, by which a core partner will be identified. In turn, the Jordan Country Coordinator and Post-Doctoral Research Fellow will be hired through the core partner institution. A schema with updated organizational structure and the management workflow is listed below:



VII) Environmental Management and Mitigation Plan (EMMP)

As per the USAID regulations, the ME with its core partner (once identified) will develop an Initial Environmental Evaluation (IEE) and the EMMP. The IEE regulations will be translated into specific mitigation actions to be implemented in Jordan. Specific monitoring measures, timelines and responsible parties will be identified as necessary. A quarterly review of EMMP monitoring and mitigation activities will be conducted and information for each IEE will be compiled. In addition to the EMMP, the Nutrition Innovation Lab will also develop a mitigation plan for research infection control (COVID-19), a guideline put in place by Tufts University office of vice provost for research (OVPR) as part of its effort to safeguard research team and activities in the face of ongoing pandemic.

VIII) Open Data Management Plan

The Nutrition Innovation Lab is in the process of developing its data management plan (DMP) for USAID/Jordan's approval. The Nutrition Innovation Lab will generate a series of extensive and diverse qualitative and quantitative impact evaluation datasets. A detailed information on the type of data that will be collected will be updated in the subsequent quarterly report in FY2021.

IX) Future Directions

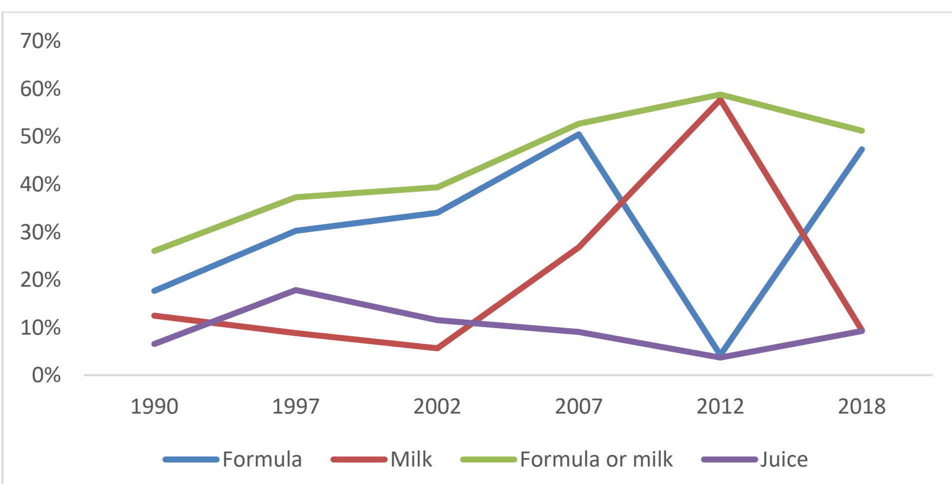
In FY2021, the Nutrition Innovation Lab will continue to work on planning and implementing activities under the two objectives, including implementation of the baseline IE survey, fellowships, webinars and a scientific symposium (virtual or in-person). In addition, the Nutrition Innovation Lab will complete the process of identifying a core partner and stakeholders in Jordan, and collaborate and engage closely with USAID/Mission, CHN implementers and the government of Jordan.

Appendix 1: Success Story

Need for Policy and Program Relevant Evidence on Complementary Feeding Practices in Jordanian Infant and Young Children

The low rates of exclusive breastfeeding and inappropriate complementary feeding practices are a significant public health issue in Jordan, particularly given the rapidly rising rates of overweight and obesity among both adults and young children. According to the 2018 DHS survey, while breastfeeding in Jordan is common with 92% of Jordanian children being breastfed at some point in the first 6 months, exclusive breastfeeding rates are very low. Only 26% of infants are exclusively breastfed through the first 6 months of life, with the median duration of exclusive breastfeeding being less than one month. With respect to complementary feeding, 83% are introduced to semi-solid foods by 6-8 months of age. However only 22% of breast-fed infants 6-8 months of age have received 4 + food groups and 35% achieved minimum meal frequency while only 12% achieve a minimal acceptable diet (consuming 4+ food groups *and* achieving minimum meal frequency). This increases to less than two-thirds achieving minimum dietary diversity, 37% achieving minimum meal frequency and 32% achieving minimum acceptable diet by 18-23 months of age.

We used nationally representative, multi-year Demographic Health Surveys (DHS) to assess IYCF practices and diets in the first 24 months of life of Jordanian infants. The secondary analysis conducted by the Nutrition Innovation Lab utilizing DHS data from 1990 through 2018 shows a steady increase in consumption of infant formula or animal milk by children under 6 months, see Figure 1 below. In 1990, 26% of children under 6 months consumed formula or milk, but by 2018 this proportion doubles to 51%. When formula and milk are examined separately, it is clear that this rise in formula or milk consumption is due mainly to a drastic increase of infant formula. Juice consumption has varied but remains steady with around 10% of children consuming juice in 2018.



<u>Figure 1. Formula, milk and juice consumption by children under 6 months of age in Jordan</u>

Using multi-variate logistic regression analyses and adjusting for child's age in months, geographic location (governorate and urban/rural), and mother's educational attainment, children were 3.7 times more likely to have consumed formula or milk in 2018 compared to 1990 (OR=3.67, CI=2.74, 4.91). Compared to children under 6 months living in Amman, those living in Zarqa were 30% less likely to consume formula or milk (OR=0.69, CI=0.51, 0.93), while children in Karak were 2 times more likely than children in Amman to consume formula or milk (OR=2.07, CI=1.46, 2.95). This increase in consumption of infant formula and animal milk goes hand in hand with the decrease in rates of exclusive breastfeeding for 6 months, as well as the short median duration of exclusive breastfeeding.

In children 6 to 23 months of age, an increase in formula or milk consumption was also seen between 1990 and 2017 (OR=3.48, CI=2.86, 4.24). Similarly, children 6 to 23 months of age were 3.2 times more likely to consume juice in 2017 compared to 1990 (OR=3.21, CI=2.58, 4.00). These increases are contrasted with decreases in consumption of important nutrient-rich foods including meat/fish/poultry/eggs and vitamin A-rich fruits and vegetables: children 6 to 23 months of age were 39% less likely to consume meat/fish/poultry/eggs in 2017 compared to 1997 (OR=0.61, CI=0.52, 0.72), and 33% less likely to consume vitamin A-rich fruits and vegetables in 2017 compared to 2002 (OR=0.67, CI=0.57, 0.78).

In light of this emerging shift in feeding practices and the type of foods being provided to the young children in Jordan, analysis continues on assessing feeding practices and diets utilizing the DHS data. While most Jordanian infants are not meeting the minimum acceptable diet requirements (MAD), given that Jordan is a middle income country, has no issues with food security and the low rates of undernutrition, it is likely that infants and young children are being exposed to foods that are not enumerated within the DHS. Studies conducted in other countries have reported increasing use of commercial snack foods as complementary foods. For example, a study in Nepal found over 75% of infants and young children in Kathmandu valley reported to consume commercial snack foods prior to 2 years of age. In Jordan, while we do not find specific literature on the role of snacks and sweets and sugary beverages in early life diets, we do find documentation of a high prevalence and severity of caries in 4-5-year-old children in Amman. Furthermore, children have been reported to regularly consume (76% of 4-5-year-old children) biscuits and cakes. Over 50% have reported consuming canned fruit juice and carbonated drinks regularly between meals and 42% report consuming tea with sugar.

For sound policy and programming within the space of MIYCN, it will be critical to understand what, when and how a mother chooses the first foods and the relationship of consumption of ultra-processed foods such as cookies, chips and sugar-sweetened beverages versus consumption of nutrient dense foods and continued breastfeeding. Thus, the Nutrition Innovation Lab aims to conduct analysis using a sub-sample of the Jordan Household Income Expenditure Survey (HIES) and to assess trends/patterns and changes in expenditure on defined ultra-processed foods and sugar sweetened beverages particularly in households with children under 2 years of age. The Nutrition

Innovation Lab will assess the share of total expenditure on ultra-processed foods (UPF) and on nutrient dense foods (NDF) such as animal source foods, fruits, vegetables (e.g. dark green leafy vegetables, Vitamin A rich vegetables) and assess the association between share of expenditure on UPFs versus NDFs. The evidence generated through this analysis have important policy and programmatic relevance for Government of Jordan, and support program implementers as they plan their interventions targeting complementary feeding and nutrition in infant and young Jordanian children.

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Appendix 2: CHN-Nutrition Innovation Lab Joint Workshop Agenda

Day 1 (August 17): Laying the Groundwork (All)

	Time	Format	Who
Session 1: Introductions (30 Min)			
Output: *Meeting kickoff* ***Facilitator/Moderator:*** Doris Youngs, CoP Community Health and Nutrition			
1.1. Individual Introductions	10 Min	Round-robin	Doris Youngs, CoP Community Health and Nutrition
1.2. USAID Remarks	10 Min	Presentation	Dan Sinclair, Director, Population and Family Health, USAID Jordan
1.3. Meeting Overview & Expectations	10 Min	Discussion	Doris Youngs, CoP Community Health and Nutrition Shibani Ghosh, Associate Director, Nutrition Innovation Lab
Session 2: Partner Overview (1 hour 15 Min)			
Output: *Shared understanding of the background and role of each project stakeholder* ***Facilitator/Moderator:*** Elizabeth-Marino Costello, Senior Program Manager, Nutrition Innovation Lab			
2.1. Introduction to FHI 360 Nutrition	15 Min	Presentation & Q&A	Tobias Stillman, Director Nutrition and Food Security, FHI 360
2.2. Introduction to the Royal Health Awareness Society (RHAS)	15 Min	Presentation & Q&A	Hanin Odeh, Director General, Royal Health Awareness Society
2.3. Introduction to the Health Care Accreditation Council (HCAC)	15 Min	Presentation & Q&A	Rabab Diab, Deputy Director, Health Care Accreditation Council
2.4. Introduction to the Institute for Family Health (IFH)	15 Min	Presentation & Q&A	Osama Samawi, Deputy Director, Institute for Family Health
2.5. Introduction to the Nutrition Innovation Lab	15 Min	Presentation & Q&A	Patrick Webb, Program Director, Nutrition Innovation Lab Shibani Ghosh, Associate Director, Nutrition Innovation Lab
Break (15 Min)			
Session 3: The CHN Project			

Output: Understanding of key CHN and NIL project parameters and outstanding questions *Facilitator/Moderator:* FHI 360			
3.1. Theory of Change, Target Population and Phasing. Year 1 Workplan.	1 Hr	Presentation & Discussion	Doris Youngs and Toby Stillman
3.2 JNIL project overview, research approach & planned activities	1 Hr	Presentation & Discussion	Shibani Ghosh, Associate Director, Nutrition Innovation Lab Robin Shrestha, Project Coordinator, Nutrition Innovation Lab
End Day 1			

Day 2 (August 18): Roles, Responsibilities, Contributions and Questions (Technical staff involved in formative research, monitoring and evaluation)

	Time	Format	Who	Materials
Session 4: Exploring Roles, Responsibilities, Contributions and Questions				
Output: Enhanced understanding of where the CHN and NIL scopes intersect and increased clarity around roles, responsibilities and outstanding questions ***Facilitator/Moderator:*** FHI 360				
4.1. Formative research	1 Hr	Presentation & Discussion	Ahmad Nofal, Senior SBC Advisor, Community Health and Nutrition & Kara Tureski, Director, SBC, FHI 360	
4.2. Project Evaluation Approach (Baseline, Midterm, End); Review USAID IE guide	1 Hr	Presentation & Discussion	Shibani Ghosh, Associate Director, Nutrition Innovation Lab	
Break (15 Min)				
4.3. Project Monitoring	30 Min	Discussion	Lana Khoury, MEL Specialist, Community Health and Nutrition	
4.4. Potential Research Questions	30 Min	Discussion	Myriam Hamdallah, MEL Technical Advisor, FHI 360 Shibani Ghosh, Associate Director, Nutrition Innovation Lab	
4.5. Program Collaboration a) University Curriculum b) Mobilization/Campaigning	30 Min	Presentation & Discussion	Hanin Odeh, Director General, Royal Health Awareness Society	
End Day 2				

Appendix 3: CHN-Nutrition Innovation Lab Joint Workshop Brief Report

Jordan CHN-NIL Partners Meeting on
Supporting Program and Evaluation Design of the CHN project
August 17-18, 2020
Day 1 – August 17, 2020

Session 1: Opening Session
Name of the Presenter/s:
Doris Youngs, FHI 360
Dan Sinclair, USAID Jordan

Summary notes:
- There is a need to do more with the CHN learning objectives
- The collaborations and partnerships between CHN and NIL are critical.
- As the project design continues, sustainability part of the project should be a crucial part and something all the teams need to work on from the very beginning. This also means engaging and working closely with universities and in-country partners in Jordan.

Session 2: Partner Overview
Name of Presenters:
Toby Stillman, FHI 360
Hanin Odeh, Royal Health Awareness Society
Rabab Diab, Health Care Accreditation Council
Osama Samawi, Institute of Family Health
Patrick Webb/Shibani Ghosh, Nutrition Innovation Lab

Summary notes:
- The partners introduced and shared the background of their institution and their role in the CHN project

Session 3: The CHN project
Name of the Presenter/s:
Toby Stillman

Notes from the presentations:
Presentation 1: CHN Theory of Change, Target population and year 1 workplan: Toby Stillman
- Goal of the CHN is to improve the nutritional status of pregnant and lactating women and children under the age of 2
- COVID-19 is going to impact the roll out and the implementation of the project, but the plan is to implement the project as intended and see the nutritional outcomes that were first envisaged

- The key expected outcomes of CHN are improvement across the six behaviors
- The outcomes will not be evaluated on the shift on population level nutritional status
- All implementation will be carried out through local partners
- The franchise model will incorporate both private and public health facilities
- Community rollout strategy has not yet been fully articulated at this moment

Presentation summary notes:

- To achieve measurable improvements across 6 behaviors, FHI360 has 3 intermediate results (IRs)
    - IR1 – Improved household and community-level attitudes, skills and support for adoption of optimal MIYCN-PPFP and healthy family dietary practices
    - IR2 – Improved healthcare provider support for optimal IYCF, family diet, and PPFP practices (healthcare provider support)
    - IR1 is bi-directionally related to IR2
    - IR3 – Improving linkages between community-based interventions and formal health systems
- The six behaviors related to families eating adequate amounts of diverse, nutritious foods and avoid unhealthy and sugary food and beverages will be focused on PLWs and children under the age of 2 years
- Two behaviors related to COVID-19 pandemic has been added to the original six behaviors. This includes messaging on wearing masks and maintaining recommended social distancing.
- The behaviors will be achieved through the socioecological lens (key underlying principle)

<u>IR1 (potential measures of success are being refined)</u>

- Enhanced outreached and household-level support
- Increase exposure to MIYCN-PPFP messaging through mass media
- Increase reach and effectiveness of social movements promoting priority rights and services
- Accurate, accessible information on MIYCN across the internet and social media
- Enhanced GOJ capacity to prevent, detect and respond to COVID-19.
- Broad range of CHWs cadre, although expensive are available in Jordan. They will be critical to delivering the IPC at the community level.
- Social movement component is critical to move entrenched behaviors
- IR1.3 is about catalyzing existing networks to increase demand for MIYCN services and FP – social mobilization
- The CHN partners to implement IR1 strategies are:
    - 1.1 RHAS / IFH
    - 1.2 RHAS
    - 1.3 RHAS
    - 1.4 FHI360
    - 1.5 RHAS
- On IPC front – RHAS will be focused on peer support / BF support groups. IFH will focus on outreach agents (to be identified), CHWs, and other outreach agents

- FHI360 will engage someone from their team who specializes in social media, internet and messaging through digital communication

<u>IR2</u> includes comprehensive package of services across the continuum of care

- IR 2.1 includes network of health facilities providing standardized services (franchise) (associated with IR1)
- IR 2.2 includes improved knowledge, attitudes and skills among providers through two training courses, the first one being e-based and second being classroom-based (in-person). The resources for these trainings will be derived from global packages adapted to Jordanian context.
- IR 2.3 includes recommendations for enhancing exposure to MIYCN-PPFP within pre-service provider curricula, and increase availability of lactation counselling and BF support services
- This will be done in collaboration with NIL.
- IR 2.5 focused on continuity of BF and FP services throughout COVID-19 pandemic
- The key partners for IR2 are:
  - 2.1 HCAC – implementor (franchisor); IFH – early adopter
  - 2.2 IFH
  - 2.3 RHAS
  - 2.4 HCAC
  - 2.5 HCAC and IFH
- Franchising model – both private and public health facilities.
- Clinics that embrace the franchise model will receive free marketing in the near term that will be subsidized by the CHN project.
- Incentives for providers that embrace the franchise model include:
- Private sector incentives
  - Increased client load paying for comprehensive obstetric services
  - Lactation counseling service reimbursements
  - Ancillary reimbursable products
  - Government incentives
- Public sector incentives
  - Mandated expectations
  - Recognition incentives
- Currently, only 3 lactation consultants in Jordan. Lactation counsellors, a cadre below consultants will be launched through the CHN project. This will also include establishing certification and accreditation process of lactation counsellors

<u>IR3</u>

- IR 3.1 includes enhancing linkages between project supported providers and community-based agents
- IR 3.2 includes adapting an existing mobile application to enhance referral and follow up between franchise facilities and community-based agents
- IR 3.3 includes a network of community-based agents providing standardized services under a common brand
- The partners for implementing IR3 strategies include:
- 3.1 IFH / RHAS / HCAC

- 3.2 IFH
- 3.3 IFH / RHAS / HCAC

<u>Target Population</u>

- Governorates that are both high density and low density
    - Zarqa (large proportion by public, quite a bit by private)
    - Karak (low density, high proportion of services provided by public, small private)
    - Amman (50% private ANC, 50% public ANC)
- CHN will focus on 4 districts from three governorates. This includes 2 districts in Karak, 1 district in Aman, 1 district in Zarqa
- IR 1.1, 2.1, 2.5, 3.1, 3.2 and 3.3 are associated with community-based work in the 4 districts
- IR 1.2, 1.3, 1.4, 1.5, 2.2, 2.3 and 2.4 also have a national dimension integrated in them, which is broader than the 4 districts that the project will operate in.

<u>Phasing</u>

- This has not yet been fully articulated, especially for the community rollout strategies
- Franchise rollout will be rolled out in 2 cohorts in the first 3+ years
- Cohort 1 will include 12 facilities; mix of both public and private
- Cohort 2 will include 9 facilities
- Cohort 1 and 2 will be subsidized by the project for certification as a franchise
- Cohort 3 will be add-on facilities that buy-in but will not be subsidized – this would also indicate the adoption and scaling up of franchise models
- Community engagement roll-out may be rolled out at the same time as franchise model or earlier.

Questions discussed:

- How much change can CHN expect to achieve at the broader household level pertaining to the six behaviors?
- Do we track the overall impact at the at the national level or only at the sub-national level in the 4 districts that the project is operating?
- Population level outcomes versus measurement across the six behaviors? How can we associate changes in behaviors and its impact?
- How do we use an evaluation design at the national level?
- What do we measure/evaluate the impact?

The NIL team followed up with their feedback /questions from day 1. The questions/feedback are listed in the table below.

Questions/Feedback	Suggested next steps

IR-1: 1. From the presentation this morning, the understanding is that the peer support groups along with CBOs and Community Health Workers (CHW) will be utilized as key outreach and community agents for IPC related activities at the community/household level. Some of the questions below may only be answered after CHN's formative research, but might be helpful to lay it out here - I. Who are likely to be the community agents? Are they health focused frontline workers? Is there such a workforce in Jordan's primary health care system? II. Are they (community agents) delivering the same set of nutrition and family planning messages as will be available in the facility (Figure 5 of the technical application- the indicative service package)? III. What messages will the agents provide? Will the messages these agents provide to the beneficiaries increase demand for the services that the franchisee is likely to provide? Will they explicitly provide information on the franchise in the community? IV. How often will these agents meet with target beneficiaries? Given the potential cultural constraints, is the idea that these interactions (particularly with women) would be individual? V. What is the level of access to the social media particularly of marginalized groups? i.e. low socio-economic status, low intensity areas, poor internet connectivity areas	● Feedback from FHI 360 ● NIL and FHI 360 have further detailed discussions with the primary implementers (RHAS on the IPC, and IFH on the outreach agents) on these questions.
IR-2: I. Any insights on whether the hospitals and clinics in Jordan are keen on accepting ALPP as a high enough qualification to be used in a clinical setting? How will CHN change the perception of the certification and acceptance? It's agreed that IBLCE is too expensive, takes too long to complete, and job market is bleak.	● Feedback from FHI 360 ● NIL and FHI 360 have further detailed discussions with the primary implementing partners (RHAS and HCAC)
Linking IR-2 to IR-1	

1. How will CHW and other agents (peer support groups, mothers' groups, CBOs) delivering IPC related activities link the households/community to the health facilities (that includes both the referral centers as well as the facilities with the franchises)? Role of mobile clinics? Are they targeting military hospitals as well? 2. Will the lactation counselors be linked to the franchisees? Will they be connected to the CBOs and/or community agents? Or will the community agents be able to provide referrals to the lactation counselors? 3. Driving services to private hospitals but how are they compensating for the fact that private sector providers are financially unattainable by most Jordanians? What kind of incentives can push people into these hospitals and care centers and forego going to government centers which are feasible?	● Feedback from FHI 360 ● NIL and FHI 360 have further detailed discussions with primary implementing partners (RHAS, IFH)
Achieving IR3 by linking IR2 and IR1 1. The ANC/PNC facilities that Toby talked about are the first line of care for pregnant women. Will all the facilities in the district have the ability to refer to the franchise hospital? Will they receive training for this? 2. Are the ANC/PNC facilities (assuming these are primary health care centers if public sector based) also providing post birth care (e.g. immunizations, growth monitoring, other pediatric services)? 3. Based on the technical application, RHAS has community clinics whose team members could serve as community agents. Is this across all four districts?	● Feedback from FHI 360 ● NIL and FHI 360 have further detailed discussions with primary implementing partners (RHAS, IFH)
Specific to Mass media and social movement (nation-wide) in IR-1 1. What is the timeline for rolling out the different campaigns (including provider BC)? 2. If using a Facebook group, what is the strategy for outreach? Will there be facilitation of dialogue and interaction? Will events and/or information be posted there? Some understanding on the nature of the interactions and their intensity is needed. 3. If planning for billboards, radio ads/programs, TV ads/program, how long will they be aired? Where will billboards be placed? How often will radio programs/TV programs be aired?	● Feedback from FHI 360 ● NIL and FHI 360 have further detailed discussions with primary implementing partner (RHAS)

4. Role of father/paternal side for ascertaining information and community change from CHW and community outreach program? Will their influence be considered?	

Day 2, August 18, 2020

Session 4: Project Evaluation, enhanced understanding of CHN and NIL scope of work and its intersection, roles and responsibilities
Name of the Presenter/s:
Shibani Ghosh, Nutrition Innovation Lab
Ahmad Nofal, FHI 360
Lana Khoury, CHN
Hanin Odeh, RHAS

Summary of the Presentations:
Presentation 1: Shibani Ghosh
- The presentation included objectives, theory of change, and management/organization structure of the Nutrition Innovation Lab
- As part of the secondary data analysis, key descriptive findings from the multi-year DHS data analysis were shared. Some key findings included:
    - The data did not really show a pattern with food groups consumptions over time
    - There was an increasing consumption of sugar sweetened beverages
    - The team assumed that a lot of ultra-processed foods are being consumed in Jordan but has not been collected in the DHS data. To overcome this, the NIL team has been working with USAID/Jordan to access and use Jordan HIES to triangulate the findings with that of the DHS data.
- The key Impact/outcome evaluation question that NIL is focused on: Did the CHN program achieve stated outcomes?
- Some of the key questions for the process and performance evaluation - was the program implemented as planned? Were franchises managed adequately? Was training received? What were barriers and facilitators?
- Sustainability assessments will be focused on whether the actions/behaviors were picked up and continued at the facility and at the community level.
- Based on the CHN program design, potential evaluation design options include:
    - Cluster randomized design where clusters are randomly assigned to interventions and counterfactual; this will include cross sectional baseline and follow up surveys
    - Step wedge design: all clusters receive intervention but at different stages; this allows future intervention areas to be the counterfactual; random selection and assignment of clusters is critical for this design.

Questions and responses/points from discussions:

From FHI 360:

- The findings from the secondary analysis make sense as in Jordan, children are fed what everyone else in the household eat, and the diet always include tea that has high sugar in it
- FHI 360 requested NIL to share their literature review to not have to do double the work
- Prior conversations about curriculum review and collaborations with NIL is critical
- What is NIL's timeline for IE and how that will work with CHN's timeline?
- The process and performance evaluation will have a lot of implications for FHI 360's MEL plan; how do we collaborate on this?
- The sustainability approach that NIL is working on is an exciting option and that further discussions on this component should happen
- Will NIL also measure the intermediate outcomes of the CHN program? Will NIL follow intermediate indicators throughout? Can NIL share data between the two entities?
- Related to infant and young child feeding data, UNICEF is working on a comprehensive survey in Jordan and that they are in their last stage—the SBC advisor of CHN will share any further info on this
- The practice of caesarean section is trending, especially elective; women prefer it because of less pain
- Word of caution: suggestions were made that often times the SBC message is nailed down after evaluation is designed, so the CHN M&E plan needs to be adaptable and evaluation needs to be modified accordingly.

Presentation 2: Ahmad Nofal—Formative Research

- Six main behaviors: initiation of BF within the first hour, EBF 6 months, adequate diverse food 6-24 months, MCM at least 24 months, mothers eat adequate healthy food, families eat adequate amounts of healthy food and avoid unhealthy and sugary food and beverages
- Social-ecological model for change can target individual and community; and that the program needs to examine complex relationship between layers
- Formative research from CHN will enable to:
    - Identify and prioritize determinants
    - Segment audiences/beneficiaries
    - Identify small doable actions where appropriate
    - Understand who are the influencers, reference groups, and trusted channels
    - Map community contact points for community engagement
    - Inform mix of activities
    - Explore and refine approaches to address misinformation
    - Inform design of SBC and franchise branding and offerings
    - **will not include data collection for project evaluation, only for project design
- Formative research from CHN will include:
    - Research
        - Literature review
        - Inventory of materials (existing IPC tools and materials)
        - Stakeholder focus group discussions and key informant interviews
    - SBC Strategy development
        - Define behaviors

        - Identify audience
        - Prioritize barriers/facilitators
        - Define communication, provider and other objectives
        - Identify activities
    - Materials
        - Mass and social media
        - Communication engagement and IPC toolkits
        - Capacity strengthening and training guides
        - Referral forms
        - Community faith leader talking points
        - Facility IPC counseling tools
- Qualitative research of CHN will include
    - Use of projective techniques
    - Co-design activities and materials where possible
    - Use Trials in Improved Practices (TIPs) to identify and test small doable actions (SDAs)
- Literature review will be done in Q4 of 2020. The review will be focused on MIYCN, PPFP, COVID behaviors. The purpose of the review is to establish baseline, ascertain the influence of social and gender norms. The review process will engage stakeholders: MOH, USAID, UNICEF, Save the Children, IRC, others
- Inventory of existing SBC materials
    - Communication materials, media, trainings
    - Assessed to determine if they meet GOJ priorities
- Other mapping
    - Focal community mapping: stakeholders, SBC needs
    - Existing BF/mothers support groups
    - Promising social movements in Jordan, conduct rapid network needs analysis
- COVID insights will be done in Q4 2020. The goal is to inform development of SBC activities and materials addressing social distancing and mask use. Objectives include audience risk perception, barriers to adoption of behaviors, emotional drivers, determine communication channels. This will be achieved through KAP online survey, FGDs, KIIs, and co-design sessions with the youth

Questions and responses/points from discussions:
From NIL:
- COVID messages need to be quite sensitive since people will have questions, and need to be very consistent
- The work is so critical for community engagement, so what is CHN thinking in terms of the timeline, since that will drive their activities, and how is it in conjunction with franchise roll outs?
- <u>Responses from CHN/FHI 360:</u>
- COVID has taken more time right now, but will work in parallel to franchise
- The three-month work plan was looking at a broader horizon, so starting period would be 6-9 months out. Aiming for Q2 2021 for SBC plan
- The formative research on community engagement will be more program focused.

- This is an example of COVID impacting the CHN project and taking the focus away from main project aims, so FHI needs to refocus on nutrition aspect. This has also impacted what FHI & partners can do with regards to formative research (e.g. gathering groups of people for focus groups was okay but now might not because of lockdown and curfew). Regardless of COVID, it will take some time to start up. But activities are expected to start Jan/Feb for IR1 and IR2 activities. The community and franchise models will work together, while franchise models will be the core of the work
- In terms of timeline, FHI 360 will work on the next year's Gantt chart and share it with NIL by September 30, 2020.

Presentation 3: Pre-requisites for CHN impact evaluation design – Shibani Ghosh

- For evaluation design considerations
    - Focus on 4 districts in 3 governorates
    - Are program components and strategies different for low vs high density areas?
    - Can franchise model phased rollout be used to design step-wedge model? Is this phase out going to be in facilities that are randomly selected?
    - Define cluster (to determine sampling strategy)
    - Outcomes at individual level, but activity is at the community level
    - Number of clusters/units—how does IE baseline relate to program baseline?
    - Need to understand the project implementation and rollout strategy for operationalizing IE.
- Other considerations
    - Will IE baseline be used for CHN baseline?
    - How will differences in geographic areas impact IE design?
- Assumptions for design
    - Community engagement and franchise overlap (geographic)
    - PLWs will be exposed to full package of activities (mass media, social mobilization and lactation counselors)
    - National activities, curriculum development, capacity building will support sustainability
- Evaluation components from a data collection viewpoint:
    - Impact evaluation
        - Not limited to just program beneficiaries' surveys, but will also include community agents, counselors, and providers surveys
    - Process and performance evaluation
        - Quantitative and qualitative
        - Use of online metrics and monitoring, in addition to surveys (for social media outreach)
        - Qualitative surveys will include KII and FGDs
    - Evaluation of Sustainability
        - Issue with this component is that this should be ideally done post-program (i.e. after project ends)
        - Will include mixed methods (quantitative and qualitative)

Questions and responses/points from discussions:

Response from FHI 360/CHN partners

- The question regarding baseline data is very important, as FHI 360's assumed that baseline would be done by NIL. The question for CHN program design team was to confirm what would be collected in the baseline, its timing. The baseline should be able to measure impact and determine progress, and also to provide information to develop the best program
- Concept of facility as cluster—FHI acknowledged that the information is critical for NIL to make a decision on the design. FHI 360 to follow up on this with NIL.
- For sustainability, NIL could use proxies that are measured during the project life, and definition of sustainability might be different for this project than others (different from exit strategy)

Presentation 4: Lana Khoury—Project Monitoring
- 2 versions of M&E: output and process monitoring
- Baseline, midline, and end line, in addition to others
- Routine M&E—tools and forms to track implementation
  - Project trackers
  - Pre and post-test for trainings
  - Standardized outreach forms and trackers
  - Household visit questionnaires to assess sensitization
  - Technical assistance reports
- Complexity aware monitoring
  - Monitor and report on context, some of the factors will help and others hurt the success of the activity
  - Have developed specific outcome and progress markers
- Necessary for routine monitoring

Questions and responses/points from discussions:
- NIL suggested the need to discuss more specifics on progress markers and data management and review CHN MEL plan once a shareable version is available/

Presentation 5: Hanin Odeh—Program Collaboration
- RHAS works with 3 largest universities in Jordan
- Have developed two courses related to pre-service: health promotion and reproductive health
- RHAS will facilitate review of current curricula and provide recommendations for enhancing exposure of MIYCN PPFP
- Social movement and peer groups:
  - Map and identify existing breastfeeding groups, both virtual and in-person
  - Bring together these groups and establish networking and coordination between them
  - Increase awareness and demand for groups
  - Build rapport with public, especially in remote areas
  - All supported by mass media and social franchising
  - Remain connected with existing network, and provide capacity building opportunities
  - Want to foster learning amongst members in the network

- Two key pieces of work that overlap with NIL
    - University review of curricula, and then convening key stakeholders to facilitate conversation on improved nutrition education in medical programs. How can we collaborate on this?
    - Social movement of women who are demanding their rights around maternity care
        - How can we measure this? Look to metrics that movement organizers use
        - How do we assess peoples' engagement?

Questions and responses/points from discussions:
Responses from NIL:
- Curriculum review is definitely an area for collaboration
- NIL can set aside side-session in a symposium to convene stakeholders and encourage engagement
- Involvement and engagement in curricula review need to be discussed with the NIL team
- Clarification on peer support groups and whether they are physical groups targeting the 4 districts (Yes)?
- What are the cultural constraints to peer support groups in Jordan? And how will this be handled? The response to this question from the presenter was that:
    - Formative research will be important to answer this
    - Peer support groups do not exist in some of the areas that we are targeting—more confined to western Amman, so they're looking at bringing similar dynamics that are culturally sensitive
    - Online demand has increased across the country during COVID for increased connection among women
    - There's an advantage to establishing these groups in Zarqa and Karak governorates
    - Full circle with the social movement concept
    - Might need to step out of the box in targeting, since this program is focusing on areas that aren't necessarily the most poor
    - Internet access is quite high across wealth quintiles
    - Media is not just internet, but also the use of smartphones to get information
    - COVID has taught the GOJ about technology use and tools to use
    - When you have more information on the design, we'd love to discuss more on the collaboration. Hope to foster relationships between NIL/Tufts and Jordanian partners for future—don't have to go through CHN

Final questions and discussion points for the forthcoming discussions:
- How are we going to translate data from formative research into operational plan? - There was a general agreement that in a broader sense, there is a need to understand the primary and secondary audience, as well as barriers, to design SBC materials. We need to look at a broader range of activities, because most of the messages aren't necessarily related to health/medical system
- At a higher level, how are the facilities and community SBCs connected and going to work together?

- There is a need to determine what communities use the franchise facilities, and who from the district/communities use them.
- Lower level services for ANC/PNC care is available but the program will encourage use of franchise facilities. Will CHN program be reaching out to clinics and health centers that aren't a part of franchise?
- There is a need for further discussion on the criteria for target beneficiary's selection and sampling frame and strategies between CHN and NIL.

Appendix 4: Performance Indicators Tracking Table

No	Indicator	Reporting Frequency	Data Source & Collection Method	Fiscal Year 1 Actual
Intermediate Results 1: Rigorous Research Agenda (Evaluation of CHN utilizing qualitative and quantitative approaches)				
STIR 12	Number of peer-reviewed scientific publications results from USG support to JNIL research	Quarterly & Annually	Secondary data using Demographic Health Surveys and Household Income Expenditure Surveys; Primary data from the CHN Impact Evaluation surveys;	NA*
1.1	Number of nationally representative datasets identified and obtained for analysis on infant and young child complementary feeding practices in Jordan	Quarterly & Annually	Secondary Data Analysis using Demographic Health Surveys; Household Income Expenditure Surveys	2
	Number of peer-reviewed articles published by JNIL on trends of complementary feeding in Jordan	Quarterly & Annually	Secondary Data Analysis using Demographic Health Surveys; Household Income Expenditure Surveys	NA
	Number of presentations on infant and young child complementary feeding practices in Jordan made by JNIL at national and international policy, academic and scientific events	Quarterly & Annually	Secondary Data Analysis using Demographic Health Surveys; Household Income Expenditure Surveys	3
1.2	Total number of households enrolled and interviewed by JNIL during the impact Evaluation;	Quarterly & Annually	Impact Evaluation data	NA
	Number of enumerators, supervisors and data collectors that received training and support in study protocol and data collection tools by JNIL;	Quarterly & Annually	Impact Evaluation data	NA
	Number of men trained			NA
	Number of women trained			NA
	Number of peer-reviewed articles published by JNIL on impact evaluation of CHN activity	Quarterly & Annually	Quantitative Impact Evaluation data	NA

	Number of dissemination workshops conducted to share CHN evaluation findings by JNIL	Quarterly & Annually	Impact Evaluation data	NA
1.3	Number of focus group discussions and in-depth interviews completed to understand the facilitators and barriers of CHN program and performance by JNIL; Number of women interviewed; Number of men interviewed	Quarterly & Annually	Impact Evaluation data	NA
	Number of peer-reviewed articles published by JNIL on process and performance evaluation of CHN activity	Quarterly & Annually	Quantitative and Qualitative Process and Performance Evaluation data; CHN Monitoring and Evaluation data	NA
Intermediate Results 2: Jordan's MIYCN research agenda and capacity building				
2.1	Number of small grants fellowships awarded by JNIL to Jordanian academics and students	Quarterly & Annually	Progress tracking Journal	NA
	Number of women awardees			
	Number of men awardees			
2.2	Number of seminars, lectures and workshops conducted by the JNIL aimed at improving linkages between policymakers, academics and students on MIYCN and NCDs	Quarterly & Annually	Progress tracking Journal	NA
	Number of academics and students that attended and participated in the seminars, lectures and workshops conducted by JNIL	Quarterly & Annually	Primary and secondary data; progress tracking journal	NA
	Number of women trained			NA
	Number of men trained			NA
2.3	Number of annual symposia organized by JNIL (aimed at promoting adoption of evidence on MIYCN, PPFP and NCDs)	Annually	Progress tracking Journal	NA
	Number of attendees that participated in the annual scientific symposia	Annually	Progress tracking Journal	TBD

*NA - Not Applicable

**TBD to be decided

Appendix 5: Annual Workplan

Annual Work Plan for the Feed the Future Innovation Lab on Nutrition *Adjusting for single sub-award and COVID-19 restrictions (with an assumption that face-to-face activities would commence July 2020 and CHNA set up begins in September)																						
Project Goal: Supporting optimal infant, young child and maternal nutrition and health in Jordan																						
Objectives, Activities and Sub-activities	**Timeline of activity (February 1, 2020 to September 30, 2021)**																				**Location of Activity**	**Person or Institution Responsible**
	2020											**2021**										
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Objective 1: Governance and Administration																						
Activity 1.1 Management																						
Theory of change framework and Logic Model development and submission																					USA	Tufts
Workplan Development and submission																					USA	Tufts
Monitoring, Evaluation and Learning Plan development and submission																					USA	Tufts
Grants manual development and submission																					USA	Tufts
Quarterly and Annual reporting																					USA	Tufts
Activity 1.2: In country set up																						
Development and operationalization of organizational structure																					USA	Tufts
Develop and release of EOI (first stage)																					USA	Tufts
Review applications and selection of 2-3 partners from first stage of EOI																					USA	Tufts
Co-creation workshop																					USA	Tufts
Develop and release request for applications (RFA) for local sub-award (second stage)																					USA	Tufts
Review applications and select sub-awardee																					USA	Tufts
Set up of new office space in Jordan																					Jordan	Tufts
Define roles and responsibilities of research team in Boston and Jordan																					Jordan, USA	Tufts
Interviewing and hiring of Country Coordinator and Research Fellow																					Jordan	Tufts, Jordan partner
Objective 2: Research and Evaluation Agenda for Community Health and Nutrition (CHNA)																						
Activity 2.1 Develop and implement rigorous nutrition-focused research																						

Development of Secondary Data Analysis Protocol (Using DHS Data)	USA	Tufts
Submission for IRB approval	USA	Tufts
Data analysis (Descriptive and Inferential)	USA	Tufts
Draft report and manuscript	USA	Tufts
Activity 2.2: Develop and implement an in-depth evaluation of the CHNA program		
Development of study protocol, questionnaire and consent forms; translation of study tools		
Initial Development by Tufts	USA	Tufts
Review and feedback by in country partner and in country stakeholders (as appropriate)	Jordan	Jordan partner
IRB submissions, Tufts and Jordan; Secure IRB approvals	Jordan	Tufts, Jordan partner
Questionnaire programming in tablets	Jordan	Tufts, Jordan partner
Procurement of study supplies and equipment	Jordan	Tufts, Jordan partner
Theory of change framework and Logic Model development	Jordan	Tufts, Jordan partner
Implement baseline survey	Jordan	Tufts, Jordan partner
Data Management and cleaning	Jordan	Tufts, Jordan partner
Conduct analysis (Descriptive and Inferential)	Jordan, USA	Tufts, Jordan partner
Report Draft (Baseline)	Jordan, USA	Tufts, Jordan partner
Activity 2.3: Actively Engage and Collaborate with the CHNA program to ensure quality implementation and evidence-based learning of best practices		
Review proposed program design	Jordan, USA	Tufts, Jordan partner, CHNA implementer
Interactions on program design that will support evaluation protocol	Jordan, USA	Tufts, Jordan partner, CHNA implementer
Interactions for setting up evaluation activities and baseline survey	Jordan, USA	Tufts, Jordan partner, CHNA implementer
Development and discussion on concept note for the annual scientific symposium	Jordan, USA	Tufts, Jordan partner, CHNA implementer

Interactions on capacity building activities	Jordan, USA	Tufts, Jordan partner, CHNA implementer
Objective 3: Supporting Jordan's IYCF research agenda and building Jordan's related human and institutional capacity		
Activity 3.1: Implementing a fellowship program		
Development of call for fellowships proposals for Jordanian MS and PhD students	USA and then Jordan	Tufts, Jordan partner
Review and finalization of applications/proposals	Jordan	Tufts, Jordan partner
Award 3-4 fellowships for the first year	Jordan	Jordan partner
Presentations of fellowship recipients and their research topics at the first symposium	Jordan	Jordanian award recipients
Activity 3.2: Supporting individuals and institutions with opportunities to participate in webinars, seminars and the annual symposium		
Discussions on collaborations with Jordanian universities, Ministry of Health and other stakeholders	Jordan	Tufts
Development of MOUs with appropriate institutions (this will be work in progress and reliant on when the first visit happens)	USA, Jordan	Tufts
Development of online platform in the Nutrition Innovation Lab/Tufts website for online webinar	USA	Tufts
Offer one webinars/seminars per quarter (dependent on long term response to COVID-19)-	Jordan, USA	Tufts initially and then Jordan partner
Organize special panel discussions and learning labs during the annual scientific symposium	Jordan	Tufts and Jordan Partners
Activity 3.3: Conduct Annual 'Research and Policy' Scientific Symposia		
Development of a concept note for the symposium in FY2021	USA	Tufts
Selection of key partners and set up of organizing committee	Jordan, USA	Tufts
First organizing committee meeting (Virtual)	Jordan	Tufts and Jordan partner
Subsequent monthly or biweekly meetings	Jordan	Tufts and Jordan partner
Release of request for abstracts	Jordan	Tufts and Jordan partner
Abstract review and selection	Jordan	Tufts and Jordan partner
Venue organization and logistics planning	Jordan	Tufts and Jordan partner

Conduct Symposium	Jordan	Tufts and Jordan Partners
Objective 4: Research Uptake and Information Dissemination		
Activity 4.1: Presentations		
Presentations during inception meetings at national and international conferences	Jordan	Tufts and Jordan partner
Activity 4.2: Publications		
Complementary feeding practices in Jordan (DHS analysis)	USA, Jordan	Tufts and Jordan partner
Landscape analysis and literature review: Complementary feeding and processed foods in the Middle East		
Methodology paper- CHNA evaluation	USA, Jordan	Tufts and Jordan partner
Activity 4.3: Media		
Maintenance and regular updates to Website	USA	Tufts
Development of brochures	USA	Tufts
Social media interactions	USA	Tufts
Objective 5: Policy Engagement		
Activity 5.1 Stakeholder Engagement		
Identification of key stakeholders	Jordan	Tufts
Develop strategy for stakeholder interactions (e.g. setting up a working group, interacting with national working groups etc.)	USA, Jordan	Initially by Tufts then in collaboration with Jordan partner
National level by Tufts team on each visit and on a quarterly basis once the office is set up	Jordan	Tufts and Jordan partner
Local level engagement (e.g. during planning of data collection)	Jordan	Tufts and Jordan partner
Monthly Meetings with Mission	Jordan	Tufts and Jordan partner
Objective 6: EMMP - Environmental Monitoring and Mitigation Plan		
Activity 6.1: Development of EMMP Plan		
IEE determinations (based on research protocols) finalization	Jordan, USA	Tufts
Creation of an Environmental Management and Mitigation Plan to respond to IEE determinations	Jordan, USA	Tufts
Ensure that clear analytical procedures and lab quality assurance protocols for the safe handling and disposal of waste materials from any analytical procedures in the lab are established and followed	Jordan, USA	Tufts