



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



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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

AMEL	Activity Monitoring Evaluation and Learning
AOR	Agreement Officer Representative
CBO	Community-Based Organization
CC	Country Coordinator
CHC	Community Health Committees
CHN	Community Health and Nutrition
CPD	Continuing Professional Development
DHS	Demographic Health Surveys
FGD	Focus Group Discussions
GoJ	Government of Jordan
HCAC	Health Care Accreditation Council
HCP	Health Care Providers
IE	Impact Evaluation
IRB	Institutional Review Board
JBCP	Jordan Breast Cancer Program
JNIL	Jordan Nutrition Innovation Lab
KII	Key Informant Interview
LC	Lactation Counselor
LHSS	Local Health System Sustainability
LOI	Letter of Intent
ME	Management Entity
MEL	Monitoring, Evaluation, and Learning
MENA	Middle East and North Africa
MIYCN	Maternal, Infant, and Young Child Nutrition
MoH	Ministry of Health
MOU	Memorandum of Understanding
MMF	Minimum Meal Frequency
MDD	Minimum Diet Diversity
MAD	Minimum Acceptable Diet
MSN	Model Service Network
NNS	National Nutrition Strategy
PI	Principal Investigator
PLW	Pregnant and Lactating Women
PPFP	Post-Partum Family Planning
RA	Research Assistant
SBER	Social, Behavioral and Educational Research
SOP	Standard Operating Procedure
SP	Service Provider
SSB	Sugar-Sweetened Beverage
TAC	Technical Advisory Committee
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
UNFPA	United Nations Fund for Population Activities

UNRWA	United Nations Relief and Works Agency
USAID	United States Agency for International Development
WHO	World Health Organization
WFP	World Food Program

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Glossary of Terms

Comprehensive Evaluation

A thorough and multifaceted assessment of the design, implementation, and impact outcomes of the CHN program in Jordan. Data collection for the evaluation includes quantitative (numerical) data on key program outcomes targeting MIYCN and PFP collected through annual surveys, and qualitative (non-numerical) data that provides insights into knowledge, attitudes, and practices through open-ended interviews, focus groups, and content analysis from CHN program documents.

Fellowship Program

A structured opportunity to conduct research data analysis in the realm of MIYCN and public health nutrition, offered by JNIL for local Jordanian academics, researchers, and graduate students through a competitive application process. Individuals will participate in the fellowship program annually for a duration of 9-12 months.

Research Methods Workshop

A nutrition skill building training event that focuses on the fundamentals of research methodologies, techniques, and tools, and best practices. These workshops are conducted by faculty at Tufts University and various academic institutions in Jordan in the field of MIYCN and public health nutrition and aim to enhance local Jordan-based attendees with the knowledge and skills needed to design and conduct research effectively.

Webinar

A short workshop or plenary session conducted over the internet, allowing participants from Jordan, MENA region, and globally to attend and engage. JNIL webinars are conducted on a quarterly basis and are used for disseminating information and knowledge sharing, and promoting uptake of groundbreaking research and evidence generation around MIYCN.

Scientific Symposium

A formal conference where experts, researchers, program implementers, and scholars gather to present, discuss, and exchange ideas, evidence, findings on MIYCN, PFP, and public health nutrition in Jordan and the MENA region. The JNIL scientific symposium serves as a platform for dissemination of the Lab's new research and promotes scientific collaboration and dialogue around the MIYCN issues.

Executive Summary

The Jordan Nutrition Innovation Lab (JNIL) pursues research and capacity-building activities to support the optimal health and nutritional status of pregnant and lactating women (PLW) and children under two in Jordan. Two key objectives of the Lab are i) to implement a rigorous research agenda that includes secondary analyses utilizing existing nationally representative datasets and a comprehensive evaluation of USAID's Community Health and Nutrition (CHN) program, and ii) to build individual and institutional capacity (fellowships, scientific symposia, webinars, seminars, and workshops) in Jordan in the realm of maternal, infant, and young child nutrition (MIYCN).

To effectively achieve JNIL's project aims, a governance structure remains in place that provides the team with technical and strategic direction on research and capacity-building activities. The technical advisory committee (TAC) includes twelve distinguished experts from the Government of Jordan, USAID/Jordan, technical and subject experts from academic institutions, and non-profit organizations in Jordan.

The first activity for fiscal year 2023 (FY23) was to plan and roll out the Panel II quantitative survey. Recruitment of the supervisors, enumerators, and data collectors from last year's survey were retained and joined the research team again this year. The Panel II report was submitted in May 2023 and findings of the quantitative survey will be presented at JNIL's Second Scientific Symposium planned in 2024. Findings from Panel II were also shared with the team at Community Health and Nutrition (CHN). Additionally, JNIL developed and finalized the protocol for the qualitative process and performance evaluation in quarter 2 (Q2) and Q3 of FY23 and conducted 14 focus group discussions (FGDs) and 20 key informant interviews (KIIs). The Lab took a different approach in rolling out the qualitative survey by having members of the research team conduct both the FGDs and KIIs. This "hands-on" approach with this round will provide the research team with more details and enhance the data analysis given the more in-depth understanding.

Capacity-building activities commenced in early FY23 with the planning and execution of the Second Research Methods workshop, which began with the online portion in January 2023 and concluded in February with an in-person residency. Over 100 applications for the workshop were received, of which 21 Jordanian researchers and professionals were selected to participate. Additionally, JNIL successfully recruited and onboarded four fellows in May 2023 for the second year of its Fellowship program. The new fellows launched their 9-month research projects almost immediately with the intention that all four will present their findings at the Second Scientific Symposium. JNIL also collaborated with Jordanian policymakers, program specialists, and academic institutions to offer a series of webinars centered around cognitive child development. A total of 289 attendees from across 37 countries attended the four webinars, with many attendees being women.

Finally, JNIL began initial preparations for its Second Scientific Symposium, "*Multi-Sectoral Nutrition Approaches to Support Women, Infants and Children,*" which will be held in FY24. A call for abstracts was released in late Q4 of FY23 to solicit oral and poster presentations from researchers and students in Jordan and the Middle East and North Africa (MENA) region. The program agenda for the second symposium will include research and policy dialogue sessions and will bring together government and non-government stakeholders, local, regional, and international scholars, academic researchers, students, and program specialists to promote sharing, understanding, and adoption of concrete evidence on maternal and young child nutrition and health.

Introduction

The Feed the Future Jordan Nutrition Innovation Lab (JNIL) seeks to generate evidence on program impacts and build research capacity to support optimal health and nutritional status of pregnant and lactating women (PLW) and children in Jordan. This will be achieved through the comprehensive evaluation of USAID Jordan's Community Health and Nutrition (CHN) program, building individual and institutional capacity to conduct and interpret research, and supporting Jordanian researchers working on answering critical questions within the realm of maternal and infant young child nutrition (MIYCN).

The Jordan Nutrition Innovation Lab aims to generate evidence firstly through analysis of existing data sets, such as the Demographic Health Surveys (DHS), to ascertain complementary feeding practices in infants and young children, and secondly, through a rigorously planned and implemented comprehensive evaluation of USAID/Jordan's CHN program. The CHN program aims to improve maternal, infant, and young child nutrition and post-partum family planning (PPFP) behaviors through a combination of mass media, community and facility-based interventions, and policy advocacy actions to improve nutritional status and health of PLW and children under two in Jordan.

The evaluation will focus on impact, process and performance, and sustainability of CHN to provide evidence to support current and future policy and programming. It includes a comprehensive quantitative impact evaluation (IE), a qualitative and quantitative process and performance evaluation, and an analysis of program sustainability, all focused on three governorates of Jordan: Amman, Karak, and Zarqa. Additionally, JNIL will build individual and institutional research capacity in the realm of MIYCN by offering competitive fellowships and conducting policy seminars, webinars, and the annual scientific symposia to bring together key stakeholders from academia, government of Jordan (GoJ) ministries, UN agencies, local and international non-governmental organizations, and other in-country partners. Another critical objective of these activities is to increase awareness and policy engagement in MIYCN research and programming within Jordan.

Objective I: Governance and Administration

Activity I.1 Management

In fiscal year 2023 (FY23), JNIL maintained its collaborative and efficient organizational structure both in Jordan and at Tufts University in Boston. The JNIL team is led by Shibani Ghosh, Associate Director of the Feed the Future Food Systems for Nutrition Innovation Lab, who serves as the Principal Investigator (PI). Patrick Webb, Director of the Feed the Future Food Systems for Nutrition Innovation Lab serves as the co-Principal Investigator. Both are faculty at the Friedman School of Nutrition Science and Policy at Tufts University and have significant experience working across different countries and cultural contexts. The PI and co-PI are supported by Amman- and Boston-based teams.

In FY23, in Amman, JNIL was supported by Mindset (a research firm), Haneen Abulaila (Jordan Country Coordinator (CC)), and Mohammad Qardan (Program Manager). The CC bridged the research, policy, and capacity building components of JNIL. This position was responsible for ensuring that all stakeholders have been identified and provides oversight on activities for both objectives as well as interacting with the core team in

Boston, USAID/Jordan, CHN, Mindset, and stakeholders in Jordan. Additionally, the CC, in collaboration with the Boston team, oversaw the capacity building activities in objective 2. The Research Coordinator, in conjunction with the Boston team, oversaw and provided technical guidance for the research activities tasked in objective 1. This position worked closely with the Boston team and was involved in the field work related to the implementation of all research activities, including both qualitative and quantitative surveys.

In FY23, the team in Boston consisted of Elizabeth Marino-Costello (Senior Program Manager), Robin Shrestha (Project Coordinator, and Activity Monitoring Evaluation and Learning (AMEL) point of contact), Maha Sheikh (Communications Specialist), Jennifer Stickland (Project Administrator), Shaelin Cullen (Program Coordinator), Justin Hackett (Student Research Assistant (RA)), Kamal Kasturi (PhD candidate and RA), Afnan Alghanmi (PhD candidate and RA), and Yanlin Ren (Data Analyst). Ongoing support at Tufts University was provided by Lauren Burchfield as the Research Administrator, Barbara Gardner (Associate Director of Pre-Award Research Administration), and the communications team at the Friedman School of Nutrition Science and Policy led by Annie Devane. During FY23, support was also received from Karuna Salve (Student RA), and Saalehah Habeehah (Qualitative analyst). The local research implementing partner, Mindset, supported the Amman and Boston-based JNIL team by hosting the JNIL local office, hosting the two JNIL positions in Mindset and in-country staff, operationalizing the research studies, and providing logistical support to all capacity building commitments and stakeholder engagement activities (webinars, research methods workshop, annual scientific symposium, etc.).

1.1.1 Submission of 3 Quarterly and 1 Annual Performance Reports to USAID/Jordan

Throughout FY23, JNIL ensured timely submission and compliance of all quarterly and annual reporting requirements according to schedule.

1.1.3 Bi-weekly meetings with USAID Mission

Throughout FY23, the Principal Investigator of the Lab, Senior Program Manager, and Country Coordinator met with the USAID Mission on a bi-weekly basis. Meeting minutes were prepared by the JNIL team and sent shortly after each meeting to USAID to summarize key points discussed. These meetings ensured that the Agreement Officer Representative (AOR) was updated on all JNIL's research and capacity building activities and created the space for the team to be given useful feedback on activities.

Objective 2: Research and Evaluation Agenda for Community Health and Nutrition (CHN)

Activity 2.2: Develop and Implement a Comprehensive Evaluation of the CHN Program

2.2.1 Quantitative Survey

Activity Description

The quantitative survey falls is part of a longitudinal evaluation designed to assess the impact of the USAID CHN program in improving diets of pregnant and lactating women, infants, and young children under two years of age. The evaluation utilizes a cluster-randomized, stratified step-wedge design with two steps and two

strata (governorate and type of health facility, that is, public vs. private), which is well suited for evaluating a large-scale program, like CHN, that roll out the intervention across clusters or in cohorts.

The evaluation design is comprised of a series of four quantitative cross-sectional surveys, which are implemented every year between October and January, targeting the main sample groups, which include women of reproductive age who are pregnant or lactating and have a child under two years of age, and service providers (healthcare providers and community facilitators). The inclusion criteria for PLW necessitates that the sample group are recipients of health services from one of the public and/or private health facilities targeted by the CHN program vis a vis the Model Service Network (MSN). The inclusion criteria for service providers (SP) necessitates that they are trained by CHN and located in the program targeted public and/or private health facilities. The detailed inclusion and exclusion criteria can be found in the research protocol.

Accomplishments

In FY23, the quantitative impact evaluation completed data collection, processing, analysis, and reporting on two full rounds of surveys with PLW and SPs for Panels I and II. A summary of accomplishments by panel are shown below in Table 1, including Panel III, in which survey preparations started during Q4 of FY23 and are scheduled to roll out in early Q1 of FY24.

Table 1. Summary of Accomplishments by Panel

Panel	I (Baseline)	II	III
Data collectors trained	71	55	67
Interviews conducted (SP)	70	126	Pending
Interviews conducted (PLW)	1079	1291	Pending
MSN health facilities	24	23	21 ¹

Baseline survey (Panel I) data was collected between October and November 2021, and the report was submitted and approved by USAID in July 2022. Data collection for the baseline survey was conducted in 24 CHN-targeted health facilities across the 7 districts, which included 21 health facilities as part of CHN’s model service network, and an additional three health facilities identified as back-up facilities. A total of 1079 PLW and 70 SP completed the surveys. The PLW survey was conducted from October 10, 2021, to November 24, 2021, while the SP survey was conducted from October 3, 2021, to October 25, 2021. Findings from the baseline survey were shared with a wide stakeholder network during the inaugural national scientific symposium in Q4, FY22 (August 2022).

Development and Implementation of Panel 2 Quantitative Survey

Panel II survey data was collected between October and December 2022, and the summary report was submitted and approved by USAID in May 2023. Data collection for Panel II was conducted in 23 CHN-targeted health facilities across the 7 districts, which is one health facility less than last round due to Jabal Al-

¹Three health facilities pulled out from CHN model service network. Namely, Jabal Al-Zaytoun, ICCS Zarqa, and Royal Hospital.

Zaytoon (a health facility in Zarqa) dropping out from the model service network component of CHN. A total of 1291 PLW and 126 SPs completed the surveys. The PLW survey was conducted from October 16, 2022, to December 7, 2022, while the SP survey was conducted from October 16, 2022, to November 22, 2022. Findings from the Panel II survey will be shared with a wide stakeholder network during the Second Scientific Symposium in Q2, FY24 (February 2024).

Development and Implementation of Panel 3 Quantitative Survey

Panel III survey data collection is anticipated to begin in Q1 of FY24. The evaluation team started modifying and updating the quantitative research protocol in Q4 of FY23 and submitted an Institutional Review Board (IRB) amendment request which was received from Tufts Health Sciences IRB and Jordan Ministry of Health IRB, in August and September, respectively. Between September 17th and 18th, 11 data collectors were trained on administering the survey with SPs. The training consisted of an introduction to the project, ethics, and code of conduct in research, quality assurance and enumerator performance monitoring protocols, and training on the questionnaire using the tablet. Between September 19th and 24th, 57 data collectors were trained for administering the survey with PLW. The training also consisted of an introduction to the project, ethics and code of conduct in research, data quality assurance and enumerator performance monitoring protocols, and training on the PLW questionnaire using the tablet. On September 26th and 28th, both data collection teams participated in survey piloting activities to establish strong familiarity with survey administration before the roll out of data collection. It is worth noting that there was a priority to recruit data collection teams who had experience from previous rounds.

Challenges

The main challenges encountered in FY22 entailed field implementation challenges and a delay in finalizing the analytical outputs and final report. For FY23, mitigation measures were put in place in advance because of lessons learned from Panel I. For example, the preparation and data collection timeline were amended to include a refresher training. Additionally, instead of conducting the anthropometric training for the entire team, only a select number of experienced enumerators and supervisors were trained and technically tested after the main training on data collection tools. Another lesson learned was integrating the timeline for IRB amendments and ethical approvals following the training and piloting components. For health facilities that do not have adequate space for survey administration in a secure and confidential manner, the data collection team identified a nearby community-based organization or venue where interviews and measurements were administered privately. To ensure we were able to recruit PLW from private health facilities with low response rates, the data collection team offered the option of a home visit to complete the survey. For health care providers (HCPs) whose work schedule did not allow to complete the survey in one sitting, the data collection team reached out by phone following the receipt of an IRB amendment to contact them.

In terms of data analytics and sample representativeness, the evaluation team identified in the Panel I data that there is less representation amongst the lactating women with children between 0-6 months sub-group. Accordingly, there was an effort in Panel II and III to recruit from this sub-group and maintain a balance between the pregnant women, lactating women with children between 0-6 months, and lactating women with children between 7-24 months subgroups.

Way Forward

Panel III data collection is scheduled to start in the middle of October 2023 depending on the training and piloting progress and feedback. Given the anticipation that some health facilities will have lower response rates than others (based on learnings from previous panels), the data collection team is planning to compensate sample size based on locations, whereby samples from health facilities with low response rates in Zarqa will be compensated from other health facilities in Zarqa. Despite the fact, the data collection team will be stationed for at least 5-10 days in health facilities until it is evident that response rates are low, whether it is due to refusal rates or the limited number of eligible pregnant and lactating women visiting the facilities.

For Panel III, data collection will take place in 21 CHN targeted health facilities given the fact that three health facilities pulled out from the CHN program: ICCS Zarqa due to closure, Jabal Al-Zaytoon hospital, and Royal hospital. Data collection is scheduled to conclude between December 15th and 20th based on the progress and challenges faced during field work.

2.2.2 Development and Implementation of Process and Performance Evaluation

Activity Description

The qualitative process and performance evaluation falls under aim (2): using a qualitative process and performance evaluation design, assess the fidelity of program implementation, barriers, and challenges at different levels of implementation and across program stakeholders. The evaluation utilizes focus group discussions and key informant interviews with various stakeholders including CHN program staff, implementing partners, facilitators at the health facility and community levels, government stakeholders, and beneficiaries of the CHN program. The qualitative process and performance evaluation takes place across four panels (2022 – Panel 1; 2023 – Panel 2; 2024 – Panel 3; 2025 – Panel 4).

Accomplishments

In FY23, the qualitative process and performance evaluation completed data collection, processing, analysis, and reporting on two full rounds of data collection for Panels I and II. For Panel II, the evaluation team completed a total of 14 FGDs and 20 KIIs. Four FGDs were with pregnant and lactating women, two with mothers and mothers in law (MIL), one with female facilitators, two with healthcare providers, two with male facilitators, one with lactation counselors (LCs), and two with husbands and fathers. KIIs were conducted with staff from CHN, CHN partner staff, community-based organization (CBO), community health committees, and health facility leadership. The table below summarizes the sample size of the qualitative process and performance evaluation for Panel II.

Table 2. Summary of Samples for Panel II

Activity	Sample	Total Completed
Focus Group Discussions	<ul style="list-style-type: none">- Pregnant and lactating women (PLW)- Female and male facilitators- Healthcare providers (HCPs)- Lactation counsellors (LCs)- Mothers and MIL- Husbands and Fathers	14 FGDs

Key Informant Interviews	<ul style="list-style-type: none"> - CHN staff - CHN partner staff - CBO leadership - Health facility leadership - Community Health Committees (CHCs) 	20 KIIs
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The evaluation team started planning for the Panel II process and performance evaluation in May 2023 by revising the qualitative research protocol, data collection tools (KI and FGD guides), and informed consent forms, and setting deadlines for submitting IRB amendment requests to the Jordan Ministry of Health Institutional Review Board (MoH IRB) and the Tufts Social, Behavioral & Educational Research Institutional Review Board (SBER IRB). In July 2023, the Tufts SBER IRB notified the evaluation team that the amendments were exempt from approval, since there were no changes to the research protocol, and that the team may proceed with the study. The IRB amendment request to MoH IRB was submitted and received approval in August 2023.

JNIL's principal investigator and two Ph.D. candidates from Tuft's Friedman School of Nutrition Science and Policy arrived in country at JNIL's field office during the preparation phase prior to the start of data collection in July. All FGDs and KIIs were directly moderated by teams of two from the JNIL team. FGDs with female participants were conducted by PhD candidate Afnan Alghanmi and observed by the principal investigator. Similarly, KIIs administered in English were conducted by PhD candidate Kamal Kasturi those administered in Arabic were conducted by JNIL's in country program manager Mohammad Qardan. This modification in qualitative research administration for Panel II strongly reinforced the rigor of the research by allowing the team to debrief and summarize findings daily, and occasionally referring back to the key informants by email when there were points requiring further clarification.

Transcription, the review of transcripts, and preparations for data analysis started in parallel with the data collection process, which facilitated a swift workflow and quick turnaround of sharing timely findings with the Mission. Logistical planning and coordination with the CHN program started early in July, whereby they were informed of the timeline for data collection and requested to support JNIL in coordinating with community-based organizations and community health committees (CHCs) to recruit program beneficiaries for FGDs.

Data collection started on August 1st and concluded by August 22nd, the evaluation team conducted the key informant interviews and moderated the focus group discussions; namely, two Ph.D. candidates from Tuft's Friedman School of Nutrition Science and Policy JNIL's in-country program manager. This ensured that regular feedback loops were established and debriefs from data collection were taking place regularly with the JNIL Principal Investigator. In compliance with ethical research standards as indicated by the IRB, and to ensure methodological rigor, JNIL offered the interviews in Arabic, Jordan's national language. If the interviewee requested the interview in English, the data collection team complied. CHN's Chief of Party and the Senior Research and Monitoring, Evaluation, and Learning (MEL) specialist requested the interviews in English while the remaining were administered in Arabic.

Challenges

Limited challenges were encountered in the Panel II qualitative process and performance evaluation, namely those were logistical and operational, but both were rectified in advance during the planning stage. JNIL ensured

to plan with CHN staff to avoid overlapping the data collection with any major CHN activities. Through regular bi-weekly check in meetings between JNIL and CHN, the team was able to identify the most convenient time for CHN staff and partner key informants to be interviewed. All CHN staff and partner key informants were interviewed in the first two weeks of August 2023.

The diligent collaboration between CHN and JNIL ensured that the evaluation team was able to recruit eligible PLWs, husbands and fathers, and mothers and mothers in law in a timely manner through community-based organizations and community health committees. The CBOs, on behalf of JNIL, contacted the eligible participants and invited them to participate in FGDs.

In terms of logistical planning, JNIL grouped the FGDs from Zarqa and Amman together. Participants from Zarqa and Amman were assigned to one FGD given that the two governorates are not far from each other. On the other hand, FGDs with participants from Karak were all conducted in Karak, except for cases in which participants had agreed to commute to Amman.

The JNIL team was able to complete all planned FGDs and KIIs, except for health facility managers who were not able to participate since they were newly assigned as health facility managers. Nevertheless, JNIL was able to interview a representative, usually the quality assurance department manager who is also the focal point for CHN within the facility.

Way Forward

The evaluation team put together a synopsis from the Panel II process and performance evaluation and shared it with the Mission in early September 2023 highlighting key findings. JNIL will continue to employ applied thematic analysis to identify themes that emerged from KIIs that illuminate the process theory of the CHN program and the shifts in the design, planning, and implementation of its program components. The findings from Panel II will be drafted in a report and shared with the Mission for approval at the end of Q1/beginning of Q2 of FY24.

Concurrently, JNIL will plan for Panel III (FY24) of the process and performance evaluation. This panel is intended to continue to garner insights through KIIs and FGDs from CHN stakeholders as the program progresses towards its outcomes. Key institutional and community stakeholders will include CBOs and health facility management, CHN partners, lactation counsellors, community health committees and healthcare providers, and program beneficiaries including mothers, mothers in law, fathers, and husbands. Panel III is anticipated to roll out in Q4, FY24.

Activity 2.3: Active Engagement and Collaboration with the CHN Program

Accomplishments

Throughout the year, JNIL continued virtual bi-weekly meetings with CHN, to discuss project updates, milestones achieved, and research activities. Specifically, the teams worked on rolling out the quantitative Panel II survey and the Panel I qualitative process and performance evaluation. Active collaboration and with CHN significantly contributed to the smooth execution of the panel II qualitative process and performance evaluation. During the planning stage, potential challenges, particularly logistical and operational issues, were anticipated and effectively addressed with the support of CHN. Regular bi-weekly check-in meetings fostered open communication between JNIL and CHN, allowing the identification of optimal time slots for interviews with

CHN staff and partner key informants. All interviews with CHN staff and partner key informants were successfully conducted within the initial two weeks of August 2023. CHN supported in the efficient recruitment of eligible PLWs, husbands and fathers, as well as mothers and mothers-in-law was achieved through community-based organizations and community health committees, who engaged in reaching out to eligible participants and inviting them to partake in focus group discussions.

Moreover, CHN and their local implementing partners were invited to attend and participate in JNIL capacity-building activities such as attending webinars, applying for the fellowship program, and applying for the research methods workshop. Through participation in JNIL's capacity-building activities, CHN colleagues contributed to promoting JNIL activities within their network. The JNIL Country Coordinator attended the launching of the exclusive breastfeeding campaign. JNIL also continues to interact with CHN during the monthly IP meetings. During the Tufts team in-country visit, Dr. Shibani Ghosh met with the CHN Chief of Party and their team members. In this in-person meeting, CHN and JNIL each shared activity updates. Moreover, throughout the year, JNIL organized research dissemination sessions with CHN in which JNIL shared the research findings. Continued collaboration has helped ensure the timely sharing of information and the development of materials tailored to meet the needs of the local community. JNIL continued to engage with CHN and its implementers to strengthen and enhance the collaborative learning and adapting agenda.

Challenges

There were no major challenges to report on. Time constraints led to some meetings not occurring however both groups worked closely to ensure there were no gaps in communication.

Way Forward

JNIL will continue to engage with CHN as part of its collaborating, learning, and adapting strategy through participation in JNIL's capacity-building activities. Specifically, JNIL will invite the CHN program and their local implementers to participate in the second scientific symposium. JNIL will plan to organize research dissemination sessions with CHN to share its research findings.

Objective 3: Supporting Jordan's IYCF Research Agenda and Building its Human and Institutional Capacity

Activity 3.1: JNIL Fellowship Program

Activity Description

To support Jordan's research agenda and build human and institutional capacity, JNIL awarded four 9-month fellowships to emerging Jordanian researchers and scientists within the area of maternal, infant, and young child nutrition. Competitively selected fellows worked closely with their mentors, with guidance from JNIL and its TAC, to undertake rigorous research (qualitative, quantitative, mixed methods studies, secondary analysis) in Jordan to support and increase empirical evidence around MIYCN.

Accomplishments

In the early part of FY23, two recipients of the 2022 JNIL Fellowships Program (Dr. Nahla Al Bayari and Dr. Marah Hilat) completed their fellowships and submitted their final reports. Dr. Nahla focused on assessing dietary intake, hemoglobin and iron status, and weight gain of pregnant mothers who attended antenatal care

clinics in Northern Jordan, as well as identifying various factors associated with low food consumption. Meanwhile, Dr. Marah focused on assessing, identifying, and determining the prevalence of the factors associated with neural tube defects during the COVID-19 pandemic in Northern Jordan. The final reports were comprehensive and detailed their analyses and were submitted to the AOR in May of 2023. Moreover, Dr. Nahla finished writing of the manuscript and submitted it for publication. Dr. Marah is completing a paper with the intention of submitting it for publication in FY24.

The second Fellowship Call for Applications was released in Q1 of FY23. The announcement was shared through various platforms, including JNIL's website, social media (Twitter, Facebook), and mailing list. The announcement was also shared with Mindset and JNIL's Technical Advisory Board to circulate within their networks. At this time, JNIL formed two review committees: one committee to review the letter of intent (LOI) and a second committee to review full proposals. To form the Committees, JNIL released a Call for Reviewers using an application portal, in which 15 reviewers were identified. This streamlined the process for gathering reviewers and allowed JNIL to add more collaborators to the project. These new additional colleagues will be called on for other upcoming activities if needed.

JNIL received 28 LOIs from Jordanian applicants, of which 12 were selected to submit a full proposal. Each full proposal followed a vigorous unbiased review process with each application being reviewed by three reviewers. All reviewers used a template with key domains of the assessment criteria. By early April, the full proposal review committee completed their review process, and four candidates were competitively selected. Although the annual budget reflected three fellowship awards, one award was carried over from the previous year. The selected fellows and their research description are shown below:

1. Dr. Iman Mahmoud is researching the "Association Between Breastfeeding Patterns During the First Six Months and Postpartum Depression, Anxiety, Stress, and Salivary Oxidative Biomarkers Among Jordanian Women." In this study, Dr. Mahmoud aims to explore the effects of breastfeeding on Jordanian women's maternal mental health and well-being using both subjective and objective tools.
2. Dr. Rand Akasheh is researching "The Relationship Between Maternal Stress, Sleep, and Feeding Practices with Picky Eating and Nutritional Status in a Sample of Preschoolers in Jordan: An Exploratory Study." Dr. Rand was inspired to study these interactions while teaching a clinical nutrition for children course and training to become a certified autism specialist.
3. Dr. Hiba Al-Fahmawi is researching "The Effect of Zinc Supplementation on Glucose Homeostasis in Gestational Diabetic Women." In this study, Dr. Hiba Al Fahwami aims to investigate the association between maternal serum zinc levels and GDM and evaluate the effect of zinc supplementation on glucose homeostasis in GDM patients.
4. Dr. Khetam Al-Awamreh is researching "Jordanian Mothers' Knowledge and Practice About Optimal Infant Complementary Feeding at 3-24 Months." In this study, Dr. Khetam Al-Awamreh aims to assess Jordanian mothers' knowledge and review practices about optimal infant complementary feeding.

Notably, four fellowship applicants were former participants of JNIL's Research Methods Workshop. This is a testament to the impact that the workshop has on the graduates since it allowed three of the fellows the opportunity to be chosen for the fellowships.

JNIL began virtual check-in meetings with the fellows and the Boston staff team members to review their updates to ensure their work is aligned with the submitted timelines and that the JNIL team in Amman and

Boston is available to give scientific advice. As per the work plan and fellowship agreement, the fellows will present their research project at JNIL's Second Scientific Symposium in FY24. Given the timing of the symposium, the fellows will be able to have more time to present their work in more detail and include preliminary research findings. The FY24 Call for Fellowship Applications preparation meetings will be underway in early Q1 with the announcements planned for Q2 in FY24.

Challenges

The activities on a whole in Jordan have proved to be more costly than originally budgeted prior to the start of the award. There may be some budgetary challenges in finding the resources for a fourth candidate for FY24. Additionally, JNIL will not have the opportunity to follow the Research Methods Workshop for FY24 and therefore, may not have candidates trained from this activity.

Way Forward

JNIL will continue to provide needed support to the four fellows. Preparation for next year's cohort will be underway in early Q1 with the Call for Applications announcement planned for Q2 in FY24. The JNIL team plans to continue with awarding of four fellowships, rather than the budgeted three slots, since this award has proved to be a unique and career-enhancing activity in Jordan.

Activity 3.2: JNIL Webinars and Research Methods Workshops

3.2.1 JNIL Quarterly Webinar

Activity Description

JNIL works to conduct quarterly webinars with both national and international subject matters to offer a platform connecting academic research with policy efforts and to bring together individuals from diverse backgrounds to initiate a dialogue on maternal and child health and nutrition.

Accomplishments

This year, JNIL took a new approach in how the quarterly webinars were conducted. The webinar format was a series of webinars that covered one overarching topic. Each webinar included an intensive lecture for 30-40 minutes from a specialized speaker followed by Q&A, rather than hosting 2-3 speakers with short presentations and a Q&A session at the end. For FY23, the webinar series focused on cognitive child development, a nutrition topic of high interest in Jordan.

A total of 289 participants from across 37 countries attended the four webinars, with most attendees being women. There was participation across the public, private, government, and civil sectors, with the highest representation of attendees coming from the private sector. The webinars were promoted through JNIL's website, social media (Twitter, Facebook, and LinkedIn), and mailing list. Additionally, webinar announcements were shared through Agrilinks, USAID Advancing Nutrition, the Friedman School of Nutrition Science and Policy, and with the TAC for them to promote within their professional network.

The first webinar in the FY23 series was held on March 1st, 2023, titled, "Impact of Maternal Obesity on Placental Function and Offspring Outcomes – Give Fish a Chance." Expert speaker Dr. Perrie O'Tierney-Ginn, Research Associate Professor at Tufts University and Interim Executive Director of the Mother Infant Research Institute at Tufts Medical Center, discussed the impacts of maternal obesity on placental function and offspring

outcomes, and discussed ways we could intervene to improve placental lipid metabolism. This session was moderated by Dr. Lynne Ausman from Tufts University.

The second webinar in the FY23 series was held on March 15th, 2023, titled, “Impact of Maternal Obesity on Fetuses’ and Children’s Neurodevelopment.” Expert speaker Dr. Tomo Tarui, Director of Fetal Neonatal Neurology at Hasbro Children’s Hospital and Assistant Professor at the Warren Alpert Medical School at Brown University, discussed how maternal obesity impacts children’s neurodevelopment and its developmental origin. He concluded by discussing recent studies that look to advanced fetal and neonatal brain neuroimaging technologies to help investigate this issue. This session was moderated by Dr. Lynne Ausman from Tufts University.

Building upon the first two webinars, the third webinar, titled, “Why My Mother’s Prenatal Diet & Pre-Pregnancy Weight Matter: Impact of Offspring Growth & Neurodevelopment,” focused on trends in maternal pre-pregnancy obesity and gestational diet, and the implications for childhood health. Held on June 7th, expert speaker Dr. Carmen Monthé-Drèze, neonatologist at the Newborn Intensive Care Unit and Brigham and Women’s Hospital and Instructor at Harvard Medical School, also reviewed the impact of certain nutrition intervention studies in pregnancy and looked at opportunities that addressed knowledge gaps. This session was moderated by Dr. Shibani Ghosh from Tufts University.

To conclude this year’s webinar series, the fourth webinar was held on September 19th, 2023, titled “Maternal Overweight and Obesity During Pregnancy: Short and Long-term Risks for the Neonate.” Expert speaker Dr. Patrick Catalano, Professor of Obstetrics and Gynecology at the Mother Infant and Research Institute at Tufts University School of Medicine, discussed the obesity trends in mothers and their newborns, excessive gestational weight gain, and the effects on fetal growth. This session was moderated by Dr. Lynne Ausman from Tufts University.

Overall, feedback on the webinars has been positive, with attendees commenting on how informative and educational the presentations have been in the webinar chats. Links to webinar recordings continue to be shared beyond the live event by JNIL and TAC members to increase the reach of those unable to attend on the day. Table 3 depicts the number of people who watched the webinar live and through the webinar recordings uploaded on Youtube.² For reporting purposes, JNIL uses the number of people who registered and attended the live webinars. Beyond the webinar attendee reports, JNIL uses the number of views on YouTube to determine how many people have watched the webinar recordings.

Table 3. JNIL FY23 Webinar Attendance

Webinar Title	Live Attendance	YouTube Views (as of November 2023)
Impact of Maternal Obesity on Placental Function and Offspring Outcomes – Give Fish a Chance	62	124
Impact of Maternal Obesity on Fetuses’ and Children’s Neurodevelopment	88	108

²Disclaimer: the numbers presented from JNIL’s YouTube account regarding recordings watched are not used for USAID reporting purposes. These numbers are meant to supplement attendee reports, but there is no clear way to determine if these are new viewers watching the recording.

Why My Mother's Prenatal Diet & Pre-Pregnancy Weight Matter: Impact of Offspring Growth & Neurodevelopment	63	93
Maternal Overweight and Obesity During Pregnancy: Short and Long-term Risks for the Neonate	76	57

Challenges

Live attendee participation during webinars is a bit lower than expected. In part, this could be due to how specialized and niche the webinar topic was for this series. Despite the lower live attendance, participants were engaged throughout each webinar, with an overwhelming majority of attendees staying until the very end. The high level of engagement during the moderated question and answer (Q&A) segment of the webinars indicates the high interest of these topics with researchers and professionals, both nationally and internationally. Additionally, the large number of views on the webinar recordings suggest that JNIL's webinars are being well received by the audience.

Way Forward

In early FY24, the JNIL team will reach out to members through their mailing list to elicit feedback and potential webinar series ideas. The team will use the results of this to determine the theme for the FY24 webinar series.

3.2.2 JNIL Research Methods Workshop

Activity Description

The Second Nutrition Research Designs and Methods workshop was designed to mentor graduate students and young professionals in the skills needed to write grant proposals in "Public Health Nutrition."

Accomplishments

In Q2, the second Nutrition Research Designs and Methods workshop was held online (January 3-February 3) and in-person from February 4-9, 2023, at the Marriott Dead Sea, Jordan. The second workshop included 21 competitively selected PhD and Master's degree participants from various governorates in Jordan, including Zarqa, Madaba, Amman, Irbid, Zarqa, Karak, and Balqa. The diverse collection of participants joined the workshop from various Jordanian public and private universities, UNFPA Jordan, UNRWA, and Royal Medical Services (RMS). By the end, all participants were trained, as evidenced by their final presentations and research plans, on the rigor of research methodology and further developed skills on the conceptualization, development, implementation, and analysis of quantitative research protocols.

During the online portion of the workshop, participants were provided a research methods book and access to "Canvas," a Learning Management System, where relevant reading materials were posted, including peer reviewed publications and YouTube videos. Participants were grouped in triads and worked together to identify a research question and carry out a literature review to identify relevant papers to support their proposed research question. This method of training has been used for many years and is based on the Tufts University team's expertise and experience conducting this workshop in many different countries over past years.

The second part of the workshop was a six-day in-person residency, which consisted of lectures by faculty, discussion sessions, and group time dedicated to participants to work with their triad to craft the components of their study (with faculty consultation). The workshop was opened by Dr. Lynne Ausman and Dr. Shibani

Ghosh from Tufts University. Ms. Bethany Haberer, Director of Population and Family Health, provided the opening remarks.

The topics covered during the in-person week included an introduction to MIYCN, quantitative and qualitative assessment methods, basic statistical analysis, and sample size estimation, and how to write a letter of intent and final research proposal. On the last day of the workshop, each triad presented their research proposals to the other students, faculty, and a group of academic and governmental visitors. The Ministry of Health (MoH) led a session by Eng. Rawhiya titled, “The Importance of Research in Ministry of Health.” Finally, the workshop concluded with a panel session with three seasoned professionals who discussed career paths for the students and provided insights on choosing a career in each of their respective sectors. Closing remarks were given by John McKay from USAID/Jordan Deputy Director of the Population and Family Health Office.

Challenges

Faculty and student evaluations completed after the workshop indicated that for the next workshop, the Lab should consider changes to the program, including selection of the target audience, training on how to use Canvas (Tufts’ platform), having more explicit expectations for the online period, spending more time examining different study designs, reverting to the prior textbook, finalizing an MOU between JNIL and the University of Jordan to award continuing professional development credits, and discussing how to sustain the program once the JNIL project is finished.

Additionally, even though the JNIL team reached out to the MoH several times to encourage applications from MoH technical staff, there were no MoH participants in the workshop.

Way forward

The JNIL team will discuss the challenges above in the coming months with the goal to begin planning the next workshop six months prior to the next expected workshop date.

Activity 3.3: Annual Research and Policy Scientific Symposium

Activity Description

Preparations for the second national scientific symposium commenced early in FY23. Building on lessons learned from the first symposium, JNIL held regular interactions with the TAC to identify objectives and thematic areas for the event, which included the need for multi-win and multi-sectoral policies to support MIYCN by improving access to high quality diets through food systems transformation to nutrition and lactation counseling services. It was also recognized that the second symposium would be an opportune occasion to align the program agenda with the Government of Jordan's National Nutrition Strategy (NNS) to bring the strategy to researchers and policymakers with its very clear priorities linked to MIYCN.

Originally, the second symposium was slated to take place in 2023, however, due to the high cost and budget implications of hosting an annual event, it was decided in consultation with USAID Jordan to modify the timeline and hold symposia every 18 months. This will also allow sufficient time for research on MIYCN in Jordan and the MENA region to evolve. A formal memo was submitted by Tufts to the Mission in Q2 and an agreement modification was executed by USAID in September 2023 upon approval from the AO. The second symposium is planned for February 27-29, 2024, in Amman.

Accomplishments

In consultation with the JNIL Technical Advisory Committee, it was decided that the title and focus of the second symposium will be, “*Multi-Sectoral Nutrition Approaches to Support Women, Infants and Children.*” Dr. Asma Basha, the director of the OB/GYN department at the Jordan University Hospital, Dr. Hala Al Nawaiseh, Assistant Professor in the Department of Nutrition and Food Technology at the University of Jordan, and Dr. Lynne Ausman, professor at the Friedman School of Nutrition Science and Policy at Tufts University, agreed to serve as co-chairs of the symposium. A concept note for the symposium was drafted and a scientific committee comprised of 11 members was convened to oversee planning for the event. Extensive interactions were held with event organizers and hotels, and proposals and budget quotes were solicited. Members of the JNIL team and Mindset arranged multiple site visits to potential venues. A call for abstracts was released and advertised through the JNIL mailing list and social media channels, and promotional materials and event branding were created.

Challenges

In Q2, JNIL encountered two significant personnel changes when Haneen Abulaila, JNIL Country Director, took maternity leave and Mohammad Qardan, JNIL Program Manager, departed the project. To cover project activities during this time, Afnan Alghanmi, a doctoral student from Tufts, took on additional roles and spent an extensive amount of time in country to facilitate and assist with on the ground planning, which included meeting with potential event organizer companies and management at hotel venues. The Tufts Boston team also shared responsibilities to ensure planning for the symposium remained on track.

Way Forward

The JNIL team will continue symposium planning and work with the Scientific Committee to identify speakers and refine and finalize the program agenda, which will include both policy and research sessions with an aim to bridge the policy and science gap. The symposium will facilitate deliberations through invited plenary sessions, keynote addresses, policy dialogues, and competed oral and poster presentation sessions. Following the two-day symposium, JNIL will host learning labs for students, academics, and technical specialists within the government and/or NGOs to enrich their knowledge and capacity on understanding novel tools, methods, and metrics on MIYCN research and programs. Mindset will assist with logistical planning, which will include thorough vetting and selection of the event venue. A call for learning lab proposals will be released and the call for abstracts will continue to be advertised through multiple outlets, social media channels, and targeted outreach to Offices of the President at universities throughout Jordan.

Objective 4: Research Uptake and Information Dissemination

Activity 4.1: Presentations

Activity Description

As part of the new webinar format that focuses on covering one main topic, JNIL delivered a webinar series that began in Q2 FY23 and focused on cognitive child development and nutrition. Key and novel findings from dissemination workshops continue to be conducted through an ongoing process to share CHN evaluation findings by JNIL. This will be achieved through presentations conducted during the next annual scientific symposium in FY24. This event will serve as a prime platform for JNIL and its partners to share and disseminate findings from its research and capacity-building (Fellowship program) activities in Jordan.

Accomplishments

Major accomplishments from FY23 are presented below in Table 4.

Table 4. Major accomplishments in FY23

Presenter	Event	Location	Topic	Date	Audience
Workshop Oral Presentations					
Lynne Ausman	Second Workshop on Nutrition Research Designs and Methods	Virtual (Zoom)	Short and Long Term Implications for Reproductive Age Women with Obesity and their Offspring	January 3, 2023	Information not available
Shibani Ghosh	Second Workshop on Nutrition Research Designs and Methods	Virtual (Zoom)	Maternal, Infant and Child Nutrition and Health: Global and Local Perspectives Part 1	January 3, 2023	Information not available
Lynne Ausman	Second Workshop on Nutrition Research Designs and Methods	Virtual (Zoom)	Research Questions and Protocols	January 9, 2023	Information not available
Lynne Ausman	Second Workshop on Nutrition Research Designs and Methods	Virtual (Zoom)	Selecting a Study Design	January 9, 2023	Information not available
Shibani Ghosh	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Maternal, Infant and Child Nutrition and Health: Global and Local Perspectives Part 2	February 4, 2023	21
Laurie Miller	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Quantitative Assessment Methods	February 4, 2023	21

Laurie Miller	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Nutrition and Cognitive Development in Early Life: Role of Poor Diets	February 5, 2023	21
Laurie Miller	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Nutritional Assessment Practical Sessions (ABCDEF)	February 6, 2023	21
Mohammad Qardan and Anas Al-Masri	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Data Collection, Quality, and Management	February 7, 2023	21
Mohammad Qardan and Anas Al-Masri	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Demo of Statistical Programs	February 8, 2023	21
Lynne Ausman	Second Workshop on Nutrition Research Designs and Methods	Dead Sea Resort, Jordan	Timelines and Budgets	February 8, 2023	21
Webinar Series Presentations					
Lynne Ausman	JNIL Webinars	Virtual (Zoom)	Impact of Maternal Obesity on Placental Function and Offspring Outcomes - Give Fish a Chance	March 1, 2023	62
Lynne Ausman	JNIL Webinars	Virtual (Zoom)	Impact of Maternal Obesity on Fetuses' and Children's Neurodevelopment	March 15, 2023	88
Shibani Ghosh	JNIL Webinars	Virtual (Zoom)	Why My Mother's Prenatal Diet and Pre-Pregnancy Weight Matter:	June 7, 2023	63

			Impact on Offspring Growth and Neurodevelopment		
Lynne Ausman	JNIL Webinars	Virtual (Zoom)	Maternal Overweight and Obesity During Pregnancy: Short and Long-term Risks for the Neonate	September 19, 2023	76
Outreach Activities					
Mohammad Qardan	USAID's MEL Conference and Expo 2023	Amman, Jordan	Navigating the Complexities of Program Evaluation: Balancing Rigor, Design, and Data Quality	August 13, 2023	13
Robin Shrestha	ASN 2023	Boston, MA	Complementary Feeding Practices in Jordan: Trends Analysis of 6-23 Months-Old Children using Demographic Health Surveys (1990-2017), Oral Presentation	July 23, 2023	100
Shibani Ghosh	Breastfeeding Week at Petra University	Jordan	Breastfeeding and YCF practices in Jordan: Findings from Nationally Representative Data and JNIL Evaluation Survey Data	August 3, 2023	40
Meetings with CHN					
Shibani Ghosh	CHN meeting	Virtual	JNIL Process Evaluation Findings Presentation	April 27, 2023	10
Shibani Ghosh	CHN meeting	Virtual	JNIL Panel II Qualitative Survey Findings Presentation	June 5, 2023	7

Activity 4.2: Publications

In Q2, JNIL submitted a research abstract for presentation in the American Society of Nutrition meeting to be held in July this year. The abstract was accepted on April 3rd, 2023.

In addition, JNIL finalized a manuscript using the secondary DHS survey data to be submitted to the *Journal of Maternal Child and Nutrition* in early Q3. The manuscript utilized a series of 6 DHS surveys (1990-2017) to assess the trends in complementary feeding practices (MMF, MDD, MAD) in Jordanian children aged 6-24 months, and their diets from the perspective of the consumption of nutrient-dense micronutrient rich food groups versus ultra-processed foods, breast milk substitutes, and sugar-sweetened beverages (SSB), such as juices and juice beverages, tea, and sugar water.

Moving forward, the JNIL team has begun writing another manuscript with an aim to submit for publication in Q1 of FY24.

Activity 4.3: Media

JNIL continues to maintain the project website (with the support of the Director of Communications and Web Developer at the Friedman School of Nutrition Science and Policy at Tufts), YouTube channel, and social media accounts, to regularly share project updates and information and promote JNIL's capacity building events. Additionally, JNIL continues to maintain and update its Jordan MailChimp e-list, which is used to send notifications regarding ongoing JNIL activities, webinar announcements, and call for applications.

In Q2, the Lab conducted its Second Nutrition Research Methods and Designs workshop, in which the USAID DOCS team came on the last day to interview a select number of participants. These interviews translated into social media posts from the USAID/Jordan account, at which point the JNIL team helped promote through the project social media accounts.

To increase its outreach efforts, JNIL expanded its social media presence to LinkedIn (in addition to X and Facebook) and created a newsletter series in Q3. The newsletter will be distributed to JNIL's e-list once every quarter to keep its audience informed on recent events, publications, presentations, and updates on research and capacity building activities. The first [newsletter issue](#) was launched at the beginning of September 2023, with the next issue set to come out in three months.

Additionally, JNIL created a variety of communication materials in Q3 for the project's participation in the 2023 USAID MEL Conference and Exposition. As part of its participation, JNIL submitted an updated fact sheet, displayed a milestone picture and description, and participated in a poster competition by creating a stand-alone infographic. The [infographic](#) highlights the Lab's research and capacity building outreach efforts and provides an updated estimate of how many people have been trained and reached through JNIL.

In Q4, JNIL created a series of [research infographics](#) in preparation for a meeting with the MoH. These infographics were created using secondary analysis and the evaluation of the CHN program to highlight breastfeeding practices, infant formula and breast milk substitutes, infant and young child feeding/complementary feeding practices, and healthcare providers' knowledge of IYCF practices in Jordan.

Objective 5: Stakeholder Engagement

5.1 Technical Advisory Committee

The technical advisory committee met four times in FY23. Three of these meetings were held in-person and one was held virtually via Zoom. TAC members provided technical inputs on all JNIL capacity-building activities, including the fellowship program, webinar series, research methods workshop, and the scientific symposium. TAC members were also involved in conducting JNIL's capacity-building activities, participating in the applicant review process for the fellowship and the research methods workshop. They were also involved in promoting JNIL's webinars.

5.2 Facility Stakeholder Engagement

During the quantitative data collection phase, several interactions took place at 21 health facilities in three governorates (Amman, Zarqa, and Karak) to facilitate the data collection process. Individuals identified as focal points and health care providers at each health facility supported enumerators with recruiting pregnant and lactating women and coordinating meeting rooms for on-site data collection. Service providers were also interviewed as part of the baseline data collection process.

5.3 Policy Engagement

The JNIL in-country team held several meetings with Eng. Rawhiya Barham, Head of the Nutrition Department at MoH, to provide updates on JNIL activities and to engage the MoH in planning for the Lab's activities. Through those meetings, JNIL ensured that all the capacity-building activities, including the webinars, fellowship, workshop, and symposium, are aligned with the MoH strategies and with the MoH public health priorities. JNIL's continued engagement with the MoH ensured we receive support for JNIL activities while also ensuring we were aligned with the National Nutrition Strategy. As a TAC member, Eng. Barham was engaged in quarterly committee meetings and presented at JNIL's Research Methods Workshop. Moreover, the JNIL Country Coordinator had several meetings with MoH senior staff. A meeting with Eng. Huda Ababneh, the Director of the Project Management and International Cooperation Directorate, took place to introduce the JNIL project to high level MoH officials, with the aim to advocate on behalf of and communicate JNIL's objectives, and to encourage MoH staff participation in JNIL activities.

The Country Coordinator also met Dr. Asma Rababaa the head of the Continuing Professional Development (CPD) department to discuss the CPD application process. Moreover, JNIL's Principal Investigator Dr. Shibani Ghosh met with Eng. Rawhiya twice during her visits to Jordan, in which she had fruitful discussions around the Lab's capacity building activities. Additionally, Dr. Shibani Ghosh was invited to attend the launch of the National Nutrition Strategy on October 23, 2022, in Jordan and participated in discussing how academia could be more engaged in supporting the priorities laid out in the Strategy. The aim and outcome of this interaction was to enhance and broaden engagement with multi-sector stakeholders. JNIL completed the implementation framework that results from the National Nutrition Survey, in which the Lab indicated where specific JNIL activities are addressing the framework and where JNIL can support in the future.

Additionally, in August 2023, Dr. Shibani Ghosh joined USAID Director of Population and Family Health Ms. Bethany Haberer, AOR for JNIL and CHN Ms. Mariam Abdoh and CHN Chief of Party, Ms Doris Youngs in a

one-on-one meeting between the Minister of Health, USAID, JNIL and CHN. The meeting focused on presenting updates to the Minister on the ongoing activities of both JNIL and CHN, their complementarities and the critical nature of their outcomes from a program, research, and capacity building perspective. The importance of maternal nutrition and infant nutrition was outlined as critical for successful public health nutrition for the entire family in Jordan. JNIL also had the opportunity to introduce the upcoming symposium, gaining insights from the Minister on how the symposium could be more regionally focused and support Jordan in being a leader in MIYCN research in the region.

JNIL also worked with MoH to get IRB approvals for the evaluation component of the project. Engagement with MoH helped JNIL successfully implement project activities, thereby aiding JNIL in achieving its objective of supporting Jordan's MIYCN research agenda and building Jordan's individual and institutional capacity.

Lastly, the JNIL team met the head of the nutrition department at RMS. JNIL introduced the project and discussed areas of collaboration. The aim of this meeting was to keep RMS engaged in JNIL's future high-level interactions and to create an opportunity for interested RMS staff to participate in JNIL's activities.

5.4 Other Stakeholder Engagement

JNIL's Country Coordinator is committed to attending the monthly health IP meetings and the quarterly IP meetings. In addition, she attended the Jordan Breast Cancer Program (JBCP) conference and participated in the revision of the nutrition Standard Operating Procedure (SOP) that was led by UNFPA and HCAC. The Country Coordinator represented JNIL in the first Nutrition Coordination Platform meeting at WHO and attended the USAID/ Jordan Implementing Partner Compliance and Safeguarding Issues Presentation session, the launch event of the Exclusive Breastfeeding Campaign for CHN, the USAID-OIG Fraud Awareness Briefing for IPs, the First National Symposium for Regional Exchange on CPD organized by the Local Health System Sustainability Project (LHSS), and the Fill the Nutrient Gap workshop.

Additionally, JNIL successfully participated in USAID's 2023 Monitoring, Evaluation, and Learning (MEL) Conference and Expo in Jordan. JNIL displayed a photo and description of its First National Scientific Symposium, a significant milestone from 2022, and participated in the conference's poster competition by exhibiting an infographic illustrating JNIL's research and capacity-building progress to date. The Lab also conducted an insightful breakout session titled, "Navigating the Complexities of Program Evaluation: Balancing Rigor, Design, and Data Quality."

To bring together stakeholders working with maternal, infant, and young child nutrition in Jordan, JNIL conducted an in-person meeting to engage stakeholders from government, public, and academic sectors, including distinguished representatives from USAID, WHO, WFP, UNICEF, AUM, HCAC, JBCP, CHN, and Petra University. The objective of this meeting was to begin a discourse that will allow for the development of concrete actions that the nutrition community in Jordan needs to undertake to support the National Nutrition Strategy, with a particular emphasis on MIYCN policies and programs, along with policy-relevant research and capacity building in Jordan. This meeting served as a follow-up to the newly launched National Nutrition Strategy and the call for action made at the closing session of JNIL's First National Scientific Symposium. The outcomes of the meeting included a consensus on the way forward to support MIYCN actions and priorities within the NNS and the identification of ways to collectively engage and contribute towards this goal moving forward.

Additionally, the JNIL team communicated with the LHSS project regarding obtaining CPD credit hours for participants of JNIL’s capacity-building activities. As advised by the LHSS team, JNIL began communication with the University of Jordan to formalize the relationship. The PI and the CC met with the dean of the school of medicine and the President of Jordan University, Dr. Nathir Obaidat, and discussed the process of working with the University of Jordan on obtaining CPD credits. JNIL drafted a formal agreement between Tufts University and the University of Jordan that included a description of how some of the University of Jordan faculty are collaborating on the JNIL activities.

Report on MEL Indicators

No.	Indicator	Reporting Frequency	FY23 Target	FY23 Actual	Notes
Intermediate Results 1: Rigorous Research Agenda (Evaluation of CHN utilizing qualitative and quantitative approaches)					
1.1	Number of nationally representative datasets identified and obtained for analysis on infant and young child complementary feeding practices in Jordan	Quarterly & Annually	Completed in FY22	0	
	Number of peer-reviewed articles published by JNIL on trends of complementary feeding in Jordan	Quarterly & Annually	0	1	
	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	10	6	Unable to fulfill FY23 target due to the shift of the symposium date from 2023 to 2024 as approved by USAID.
1.2	Total number of households (pregnant and lactating women) enrolled and interviewed by JNIL during the impact Evaluation;	Quarterly & Annually	1145	1815	
	Number of enumerators, supervisors and data collectors that received training and support in study protocol and data collection tools by JNIL;	Quarterly & Annually	20	140	
	Number of men trained		5	0	
	Number of women trained		15	140	
	Number of peer-reviewed articles published by JNIL on impact evaluation of CHN activity	Quarterly & Annually	1	1	
Number of dissemination workshops conducted to share CHN evaluation findings by JNIL	Quarterly & Annually	0	1		

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	0	34	
	Number of peer-reviewed articles published by JNIL on process and performance evaluation of CHN activity	Quarterly & Annually	0	0	
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	4	4	
	Number of women awardees		3	4	
	Number of men awardees		1	0	
2.2	Number of seminars, lectures and workshops, webinars conducted by the JNIL aimed at improving linkages between policymakers, academics, and students on MIYCN and NCDs	Quarterly & Annually	5	5	
	Number of academics and students that attended and participated in the seminars, lectures and workshops conducted by JNIL	Quarterly & Annually	300	310	6 attendees preferred not to answer.
	Number of women trained		150	202	
	Number of men trained		150	102	
2.3	Number of annual symposia organized by JNIL (aimed at promoting adoption of evidence on MIYCN, PFP and NCDs)	Annually	1	Postponed to Q2 FY24	
	Number of attendees that participated in the annual scientific symposia	Annually	350	Postponed to Q2 FY24	

Way Forward

JNIL aims to build on the successes and challenges of FY23 to inform the development and implementation of its research and capacity-building activities in Year 4. Lessons learned will help guide planning and enable team members to refine efforts to allow for increased project impact. Accounting for challenges and constraints, the team will replicate and emphasize aspects of the strategy that yielded desirable results, such as the use of MoH to build a stakeholder network. JNIL will continue to leverage its relationship with MoH and growing stakeholder network, including other implementing partners, research institutions, and other entities involved in the food systems ecosystem (such as the ministry of agriculture). Cross-sectoral engagement and participation are essential to creating transformational and institutional change, for which the JNIL team has laid the groundwork over the past year.

JNIL will continue to use an adaptive model and collaborative learning approach to improve nutritional health for women and children in Jordan. Building on the success and growing interest in the capacity-building events offered, the team will work strategically to implement targeted and novel trainings, relevant workshops, and critical research at the national and regional levels. Feedback from the past year has informed the upcoming implementation plan resulting in the prioritization of engagement activities. Finally, JNIL will conduct analysis and dissemination of analyses performed in FY23 and aim to successfully implement both quantitative and qualitative surveys in the upcoming year to support Jordan's IYCF research agenda while also building Jordan's human and institutional capacity.

Annex A: JNIL Technical Advisory Committee

Shibani Ghosh (Committee Chair)	Jordan Nutrition Innovation Lab, Tufts University
Mariam Abdoh	USAID Jordan
Ibrahim Aqel	Institute of Family Health
Lynne M. Ausman	Tufts University
Qusai Al Share	Jordan University of Science and Technology
Eng. Rawhiya Barham	Ministry of Health
Asma Basha	University of Jordan
Eman Badran	University of Jordan
Omayyah Saeed Nassar	University of Jordan
Hala Nawaiseh	University of Jordan
Reema Safadi	University of Jordan
Patrick Webb	Tufts University