



## Seeing the Forest *and* the Trees: Systems Thinking for Better Nutrition in the Kyrgyz Republic

### Introduction

Today, the world faces a double burden of malnutrition, with almost three billion people suffering from either undernutrition or overweight and obesity (FAO 2013). No country is untouched. Hunger and inadequate nutrition contribute to high rates of maternal, infant, and child anemia, morbidity, and mortality. They also result in impaired cognitive function and reduced future productivity, as well as the development of obesity and nutrition-related chronic conditions like diabetes.

The causes of this crisis are numerous. In 2014, the United States Agency for International Development (USAID) released its *Multi-Sectoral Nutrition Strategy (2014–2025)* recognizing the "multi-factorial causation" of malnutrition (USAID 2014a), and a local systems framework, *Local Systems: A Framework for Supporting Sustained Development* (USAID 2014b), which suggested that multi-sectoral approaches would benefit from using systems thinking to strengthen design, implementation, and measurement. Although there is growing enthusiasm for systems thinking, very little guidance exists on how a country can incorporate the approach into their program design and implementation.

In response, in 2015, USAID's multi-sectoral nutrition project, Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING), developed a simple framework for applying systems thinking (figure 1). This framework took inspiration from USAID's paper



Family doctor Yrysbu Salimbekova is introducing nurses to SPRING posters at FGP #4 in Jalalabad town.

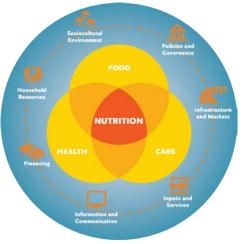
A systems approach calls on program planners and policymakers to look at the forest AND the trees - to consider and prioritize each factor individually and together that should be addressed. A systems approach does not mean everyone does everything at once, but it does push programmers and policymakers to be intentional about which factors are and are not prioritized; to recognize the interrelationships between them; to anticipate possible negative consequences; and to take advantage of synergies with existing systems, programs, and structures. SPRING's systems framework illustrates these relationships and includes several cross-cutting factors that influence, interact, and impact nutrition, as described below (SPRING 2015).

on local systems (2014b), the United Nations Children's Fund (UNICEF) framework of the causes of undernutrition (UNICEF 1990, 2013), and the World Health Organization's building blocks for health systems (WHO 2010).

SPRING hypothesized that nutrition-specific and nutrition-sensitive programs<sup>1</sup>, given the multi-sectoral nature of solutions to malnutrition, could benefit from a systems approach. We went further, hypothesizing that, in the absence of this type of an approach, programs may not adequately anticipate unintended consequences or strengthen existing systems to ensure sustainability and facilitate scale-up.

We developed this brief, which explores SPRING's work in the Kyrgyz Republic, as well as a companion brief on our

Figure 1. Framework for Systems
Thinking and Action for Nutrition



work in <u>Ghana</u><sup>2</sup> for designers and implementers of multi-sectoral nutrition programs like SPRING. Our goal was to determine how well the SPRING systems framework maps to "real world" nutrition programs. It is important to note that we did not deliberately apply systems thinking during program design or implementation in the Kyrgyz Republic because we had not yet developed the framework or related tools. This analysis is, therefore, a retrospective "test fit" to inform future programs.

By using the framework to guide this qualitative mapping exercise, we were able to identify areas that were successful as well as those that could be strengthened with a systems-thinking approach. In the sections that follow, we explore the extent to which each factor in the systems framework was considered and/or addressed as well as the attention given to feedback loops and unintended consequences. We end with a summary of our lessons learned regarding the systems framework.

<sup>&</sup>lt;sup>1</sup> Hereafter we refer to these as "nutrition-related" activities. We consider the systems approach to include of both nutrition-specific and nutrition-sensitive activities.

<sup>&</sup>lt;sup>2</sup> We were interested in conducting this mapping exercise of programs that set out to apply systems thinking. However, it was difficult to find such programs, much less any that would provide inside access. In the end, we learned from examining two of our own country experiences.

### Background on the Kyrgyz Republic

According to the 2012 Demographic and Health Survey, 18 percent of Kyrgyz children under the age of five are stunted. In addition, 43 percent of children under five and 35 percent of women (aged 15-49) had some degree of anemia (NSC, MoH, and ICF International 2013). The mountainous terrain and harsh winter climate create obstacles to food availability and access for nearly half of the year, and there is a considerable gap in the standard of living between rural families and those living in the major urban centers of Osh and Bishkek. Fortunately, however, there is wide coverage of health services at the community level, high levels of literacy (nearly 99 percent among adult women), and almost universal coverage of improved sanitation facilities and electricity. Media outlets are well-developed and utilized.

### **SPRING Program Planning** and Design

Over a four-year period, USAID provided

funding for SPRING to improve the nutritional status of women and children in the Kyrgyz Republic, through nutrition-related activities particularly aimed at reducing stunting and anemia. The economic development team of USAID/Kyrgyz Republic supported our efforts to help reach USAID's Feed the Future nutrition targets and complement the Feed the Future-funded agriculture project—Agro Horizon. Initially, we were asked to plan for two years of implementation—from October 1, 2014 to September 30, 2016. Ultimately, we received funding to continue implementation through May 2018.

Following a rapid situation analysis, SPRING invited stakeholders from the national, oblast, rayon, and community levels to discuss nutrition-related priorities. This led to the identification of two streams of work: nutrition-related capacity building and advocacy at the national level and direct implementation of a package of nutrition interventions, including mass media. Initially, the latter was to focus on 10 jurisdictions and eventually cover 18: Bishkek city plus 6 in Naryn oblast<sup>3</sup> and 11 in Jalalabad oblast.

#### **Priority Nutrition Practices in the Kyrgyz Republic**

- Consumption of iron supplements by pregnant
- Dietary diversity for women with emphasis on food sources of iron and foods that enhance iron
- Dietary diversity for children 6 to 23 months with emphasis on food sources of iron and vitamin A
- Optimal meal frequency for children 6 to 23
- Early initiation of breastfeeding
- Exclusive breastfeeding from birth through the
- complementary foods
- Reduction in the consumption of foods with low nutrient value (junk food)
- Presumptive deworming treatment for pregnant women and young children
- the latrine, after changing a baby's diaper/cleaning a child, before preparing food, and before feeding a child)
- Use of methods for safe and prolonged storage

<sup>&</sup>lt;sup>3</sup> An oblast is the largest geographic division.

Based on available data and consultations with the Ministry of Health (MoH), 11 evidence-based practices were selected as priorities for promotion of maternal, infant, and young child nutrition (MIYCN) (see box titled Priority Nutrition Practices in the Kyrgyz Republic).

In addition, in late 2014, SPRING conducted formative research to learn more about the factors affecting food consumption, the family diet, WASH, and care practices in targeted program areas. In consultation with the MoH, we used the findings to determine the approaches we would use at the national, facility, and community levels. The program was intended to serve as a model for potential scale-up in other areas of the Kyrgyz Republic.

### Mapping SPRING Actions to the Systems Framework

### **Policies and Governance**

When we began working in the Kyrgyz
Republic, undernutrition was mentioned in
national development plans and economic growth
strategies; there were many provisional laws on
the implementation of the International Code of
Marketing of Breast-milk Substitutes; several
decrees on the prevention and control of
noncommunicable diseases and on food
fortification; and a draft of a national, multi-

### The Systems Framework:

### **Policies and Governance**

Policies affect food, care, health, and the environment—although their level of impact varies according to adherence and enforcement. SPRING's Pathways to Better Nutrition (PBN) case studies in Nepal and Uganda demonstrate that clear, long-term, multistakeholder policies are critical for increasing commitments to improved nutrition (Pomeroy-Stevens et al. 2016a, 2016b). "Good governance," according to the former United Nations (UN) Secretary General Kofi Annan, "is perhaps the single most important factor in eradicating poverty and promoting development" (UN 1998). The importance of collaboration and coordination, one of the elements of nutrition governance, has been widely emphasized because it affects the implementation of multi-sectoral nutrition plans at all levels and across departmental and sectoral boundaries (Levinson, Balarajan, and Marini 2013). Our PBN case studies also reveal that the prioritization of nutrition, another element of good governance, determines the amount of funding, time, and effort it will receive (Pomeroy-Stevens et al. 2016a, 2016b).

sectoral nutrition policy. Important opportunities emerged that allowed us to contribute to the strengthening of nutrition policy and governance, including strong professional relationships between key MoH staff and SPRING staff.

"The high technical capacity of SPRING consultants facilitated their work in nutrition policy, protocols, and training curricula."

— Staff person at Ministry of Health



Provider Jaina Stamova discusses quality of nutrition counseling with colleagues of the primary care facility in Kum Dobo village, Naryn oblast.

Photo credit: Alimzhan Zhorobaev

We advocated for and helped develop several national-level nutrition-related policies and protocols. We provided technical assistance to develop and finalize the 2016 National Technical Guideline on Anemia Prevention and Treatment<sup>4</sup> as well as a separate protocol for health providers in collaboration with the national working group and the MoH. Recognizing the likely significant contribution of helminth infection on nutrition outcomes in Kyrgyzstan, we advocated for the development of a presumptive deworming policy and a clinical deworming and helminth infection protocol to complement the anemia protocol. In the Kyrgyz Republic, decrees—or prikaz—are required to make changes in training curricula, supervision systems, and the roles and responsibilities of health workers. We supported the development and endorsement of such decrees for the anemia and deworming policies and protocols, the infant and young child feeding (IYCF) training, integration of nutrition content in the preservice educational curricula for doctors and nurses, IYCF counseling as a health worker responsibility, and the Baby-Friendly Hospital Initiative (BFHI).

Given SPRING's mandate in the Kyrgyz Republic and the anticipated role of other USAID-funded projects, policies outside of the health sector were not addressed. However, such policies may need to be prioritized going forward, for example, to improve the year-round availability and access to diverse, nutrient-rich foods.

We strengthened nutrition governance through advocacy and collaboration with national working groups and platforms, including the Scaling Up Nutrition initiative, which brings together stakeholders from various sectors, donors, UN organizations, the private sector, academia, and civil society to discuss technical and programmatic issues influencing national nutrition; and through support for better coordination between sectors, including agriculture, education, and health. In addition SPRING worked to improve the supervisory systems related to the delivery of nutrition services through the health system.

<sup>&</sup>lt;sup>4</sup> The quideline is available at https://www.spring-nutrition.org/publications/tools/kyrgyz-republic-national-anemia-technicalguideline-and-protocol.



Disseminating dietary diversity key messages in Naryn. Photo credit: Alimzhan Zhorobaev

"The essential component of following up once staff are trained is necessary to be successful—I wish this was institutionalized across all the training we do. In my observation of health staff, I can see they now provide better counseling to parents on nutrition."

 Staff member of Kyrgyz Institute for Continuing Medical Education



Throughout the program's design and implementation, we considered the impact of infrastructure and markets on nutrition in project areas. Consequently, we identified a need for improved access to food and other nutritional supplies in some remote communities. For the most part, however, nutrition-related infrastructure is adequate—health facilities and schools are plentiful in the Kyrgyz Republic and a network of roads makes markets for nutrition-related supplies readily available most of the year.

## The Systems Framework: Infrastructure and Markets

Infrastructure, including roads and physical structures like health facilities, are critical to good nutrition: to educate and provide health and nutrition services and to store, distribute, and sell agricultural, food, sanitation, and hygiene products. The market is also essential in terms of the delivery, sale, purchase, and ultimately consumption of water, sanitation, and hygiene (WASH) and health products. For example, building a road to a market or trading post may allow a community to engage in value chains that impact incomes and access to healthy, diverse foods. And improving a market's sanitation facilities can reduce the spread of food and waterborne pathogens.

Therefore, SPRING did not prioritize improvements to infrastructure or markets.



Preparation for childbirth at Kochkor Maternity house. Photo credit: Alimzhan Zhorobaev

### **Inputs and Services**

Inputs and services are an important part of programming, but SPRING primarily focused on those distributed and/or delivered by the health system. Specifically, we produced and disseminated inputs to support nutrition services, such as the anemia protocol and guidelines, flipcharts, supervision checklists, and other educational materials. In particular, through our baseline assessments, we found that micronutrient supplements and deworming medications were lacking. However, procurement was not within our mandate in the Kyrgyz Republic.

As previously noted, we identified areas of high elevation with more limited food availability in the winter months. In response, we explored the idea of developing community solar greenhouses to help increase year-round food availability, but we discovered that the initial investment to build them would be too great for most local farmers. Furthermore, the USAID-funded Agro Horizon Project and the World Food Programme, among others, were already working to address food security through increased agricultural production

### **The Systems Framework: Inputs and Services**

A systems approach takes into consideration the nutrition-related inputs, products, and supplies necessary for food production, storage, preparation, and distribution of nutrition services, ranging from seeds, fertilizers, silos, and food-processing equipment to preventive and curative medicines, medical devices, and technology. However, these inputs are of little use without the human resources and services to provide, promote, and distribute them, such as teaching, selling, health care, and extension and advisory services. Despite a global consensus on actions that are essential to address malnutrition, the workforce to conduct those actions is often insufficient, under-

qualified, and unsupported for the task. A

systems approach calls for better integration of

nutrition into a wide range of broadly-defined

and imports and by improving value chains for nutritious foods (meat, vegetables, and dairy).

services.

"We like the SPRING curricula and training modules because they are interactive—not lecturing; and more interesting and appealing to participants. I started to use this approach with my students and the communication has improved."

— Staff member of Kyrgyz State Medical Academy

Given the high utilization rate of public health facilities for antenatal care, deliveries, and postnatal care, we focused on strengthening nutrition services provided in government health facilities, particularly IYCF counseling, nutrition counseling for adolescents and women, anemia prevention and treatment, and rolling out the BFHI. In coordination with the MoH, SPRING adapted and rolled out trainings on IYCF and BFHI; and developed and rolled out new trainings on adolescent and women's nutrition, anemia, and supportive supervision and mentoring for medical supervisors and health providers.

SPRING staff and MoH supervisors observed the actions and skills of trained health providers. Scores calculated based on those observations increased by 42 percent, indicating significant improvement in IYCF counseling between 2015 and 2016. Additionally, 17 health facilities (of the 27 targeted by SPRING) had received BFHI certification by the end of 2017 based on an assessment conducted by the national BFHI review committee.

"The essential component of following up once staff are trained is necessary to be successful—I wish this was institutionalized across all the training we do. In my observation of health staff, I can see they now provide better counseling to parents on nutrition."

— Staff from Kyrgyz Institute for Continuing Medical Education

SPRING also trained and mobilized community activists to visit households with a pregnant woman and/or child under two (1,000 day households) and to conduct community meetings. During these home visits and community meetings, the activists were expected to communicate key messages and provide counseling and support for the adoption of the 11 priority practices. To date, the 2,600 trained community activists (volunteers) have reached approximately 605,682 women and caregivers of children under two.

# Information and Communication

The Kyrgyz MoH does not collect *information* on the provision of nutrition services through the health management information system (HMIS). When the SPRING project first began work in the Kyrgyz Republic, we planned to be operating for only two years, and it was not feasible to adjust the system or add nutrition indicators to existing forms within that time frame.

We did, however, collect and report on our own project activities and shared these data with the MoH, which expressed a keen interest in nutrition. We asked staff at target health facilities to complete tracking forms that report on delivered nutrition services, such as IYCF and anemia prevention counseling. We asked community activists to complete and submit reports of their contacts with households and communities. Finally, we conducted baseline, mid-term, and endline surveys to assess progress on the 11 priority practices.

## The Systems Framework: Information and Communication

Information on the availability of food; the cost of agricultural inputs; the nutrition status of vulnerable people; the implementation of actions by enterprise owners, health services providers, farmers, households, and individuals; and the existence of policies and protocols is of little use if it is not communicated effectively through mass media, community mobilization, and/or interpersonal interaction. Information and communication affect actions at all levels of food availability, care practices, health services, and the sociocultural environment. For example, changes in policies, financing, and monitoring systems will accomplish little if they are not properly communicated from the national to the community to the household level. Similarly, a lack of information communicated about the cost of agricultural inputs can affect what food is grown, stored, and/or purchased.

"After SPRING supported training, materials and improved visual aids, we link hygiene messages with nutrition and have added the topics of food safety, food storage and preservation and emphasized iron and folic acid supplements for pregnant women."

— Staff, Kyrgyz Village Health Association

Communication was an important part of our work in the Kyrgyz Republic; we took a systems approach by working through multiple channels, targeting diverse communities, and reinforcing messages across different platforms. Guided by a social and behavior change communication (SBCC) strategy that we developed in collaboration with the MoH and other key stakeholders, we targeted 1,000 day households (with pregnant women and children under two years of age). Similarly, when the MoH's Republican Center for Health Promotion (RCHP) enlisted our support to develop a national multi-year nutrition SBCC strategy for urban households, we encouraged the ministry to leverage their and other programs' staff and volunteers to disseminate coordinated messages, create awareness, and promote adoption. We worked with the ministry to develop, print, and disseminate SBCC materials, such as leaflets on anemia prevention, handouts on the food pyramid, calendars, posters, a cookbook, and a food preservation and storage manual; they all promoted the 11 priority practices and were aligned with national strategies. In support of the Republican Center for Health Promotion urban nutrition communications strategy, we launched a Facebook page and developed three live action videos and four animated videos which are aired on Kyrgyz television.



Kochkor market during winter. Photo credit: Tim Williams

### Financing

Although financing for nutrition is critical, SPRING did not directly intervene in this area, primarily because our funding resources were limited and the project length was initially planned for only two years. Nonetheless, SPRING actively participated in the planning processes of the MoH, advocating for the integration of nutrition activities into the Ministry's plans. Additionally, by providing technical assistance and coordination among the health system, community systems, and the media, we generated both interest in nutrition and evidence that increased government funding for nutrition interventions yields measurable benefits. Furthermore, we provided stakeholders with information regarding the cost of continuing our activities, primarily in the form of trainings and supervision, to inform future budget negotiations.

## The Systems Framework: Financing

The development and implementation of policies and the strengthening of governance, infrastructure, markets, inputs, services, information, and communication require adequate and effective financing. Only by taking a broad systems approach can financing be effectively allocated and used to improve nutrition holistically. The USAID Multi-Sectoral Nutrition Strategy states, "political will for nutrition must be reflected through financial support" (USAID 2014a). Similarly, the 2016 Global Nutrition Report asserts, "commitment without funding represents unfulfilled good intentions" (IFPRI 2016). Lack of financing for

nutrition is one of the most significant barriers

to reducing undernutrition.



Activist Astra Zholchieva demonstrating carrot salad recipe from SPRING cook book during household visit in Kuibyshev village, Naryn oblast. Photo credit: Alimzhan Zhorobaev

### **Household Resources**

Through our baseline assessment and formative research, we identified constraints in household resources, particularly money and time, to adopt the priority MIYCN practices we were promoting, we also noted that households could use their incomes and time in ways that would lead to better nutrition outcomes. We considered the challenges and opportunities when developing communication messages and SBCC approaches. For example, we suggested replacing less nutritious foods with more nutritious foods to be resource neutral. We promoted home-based food storage and preservation, which allows households to purchase food when it is abundant and inexpensive and to increase availability of diverse foods in the winter months when food is more expensive.

Finally, we supported the Agro Horizon project, which focuses on improving household farming and increasing livelihoods. By giving them our

### **The Systems Framework: Household Resources**

Household resources include human resources (knowledge, skills, agency, and self-confidence) as well as financial resources and assets, including technology. Access to and equitable intra-household distribution of these resources drive how they are used and how services are accessed. They also affect understanding and adoption of optimal care practices as well as nutritional status. For example, education and income enable women to make well-informed decisions regarding their own health and nutrition as well as that of their children. A systems-thinking approach links various efforts to improve household resources and maximizes the use of resources for education, food, health, WASH, and other nutrition needs.

food preservation and storage guide, cookbook, and handwashing promotion materials we helped them integrate nutrition-related messages and nutrition sensitivity into their programming.



Supportive supervision of SPRING-trained health worker counseling mother with 8 month old child in Kochkor. Photo credit: Tim Williams

### Sociocultural Environment

We found that, for the most part, the sociocultural environment in Kyrgyz Republic is supportive of nutrition—health and healthy children are seen as priorities. It is a family-centered culture, where fathers expect to be involved and enjoy spending time with their children. However, negative gender

norms persist. Women and children often eat last, and a young, newly married woman in particular has little status within the family, especially relative to her mother-in law, which makes it difficult for her to adopt optimal care practices or new IYCF practices if her mother-in-law is not in agreement. Another notable concern is the suboptimal sanitation practices that seem the norm in many communities.

We considered these realities when selecting priority practices and designing our program. We engaged family members—not just pregnant women and mothers—during home visits and community events. We developed orientation sessions on gender roles and the supportive role that different household members can play when it comes to adopting and sustaining optimal MIYCN practices. During these sessions, we asked participants to make a commitment to try at least one of the supportive actions introduced.

## The Systems Framework: Sociocultural Environment

The sociocultural environment, including gender roles, relationships, cultural values, customs, and norms, influences perceptions of and access to resources and services, as well as nutrition-related behaviors and decisions around what is produced, purchased, prepared, consumed, stored, or disposed. The sociocultural environment mediates interactions with all of the other factors described above. For example, beliefs that children should be given sugar water at birth to whet their appetite or that exclusively breastfed children need water when the weather is hot present barriers to the adoption of evidence-based breastfeeding practices.

# Interactions, Consequences, and Processes of Change

When designing the program in the Kyrgyz Republic, we used the socioecological model, meaning we developed different approaches to reach people through multiple channels, at multiple levels, and through multiple sectors and factors in the systems framework. We worked at the national, regional, district, facility, and community level; and shared nutrition-related messages through mass media, community meetings, health staff, and home visits.

We used consistent, complementary messages at every level. At the national level, we supported the development and revision of government policies, protocols, and decrees, and then we supported their roll out by strengthening health services and implementing tailored SBCC activities. For

### **The Systems Framework:**

### Interactions, Consequences, and **Processes of Change**

A systems approach asks policymakers as well as program planners and manager to recognize the interrelationships between factors, anticipate possible negative consequences, and take advantage of synergies with existing systems, programs, and structures. For example, including men in support groups might reduce women's decision-making power regarding IYCF. Likewise, promoting the processing of nutrient-rich foods by women could ultimately overburden them rather than empower them or provide them with access to resources.

example, while we worked to revitalize the BFHI, preparing health staff to better promote and support breastfeeding during and following delivery, we also promoted breastfeeding through household visits, counseling, and mass media. Likewise, after working with the MoH to develop and enact new anemiarelated policies, SPRING assisted with the roll out of new trainings on the topic and promoted anemia prevention through SBC activities. We also identified a new need - iron and folic acid supplements - and worked with the Maternal and Child Health technical working group to advocate for the timely procurement of iron and folic acid supplements by the MoH.

Throughout implementation, we facilitated the reporting, sharing, and use of facility data among regional and national MoH stakeholders. In this way, we built relationships and encouraged interactions among stakeholders (policy makers, facility and community based providers, technical experts, and communication specialists) and across silos, leveraged positive feedback loops, and avoided negative consequences.

Finally, we paid attention to interactions, interrelationships, and feedback loops between several of the framework's factors. We found that a change in one area of the systems framework was able to trigger a change in another. For example, SPRING's support for new MoH decrees on health issues resulted in ministry staff adopting a new approach to supportive supervision and peer mentoring. Training health facility managers in this approach resulted in an increase of knowledge, improved assessment skills, and more relevant and engaged counseling among health facility staff.

### Conclusions on the Role of Systems Thinking

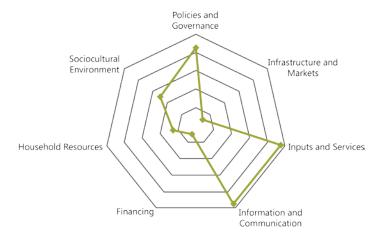
The primary goal of this exercise was to determine how well the systems framework mapped to projects on the ground. In so doing, it was important to recognize that no one project is likely to address all areas of the systems framework and that projects can form multi-sectoral relationships and partnerships with programs and organizations from multiple sectors to fill the gaps.

In the Kyrgyz Republic, we took a multi-sectoral approach, but we did not set out to apply systems thinking per se. Mapping our activities to the systems thinking framework, however, revealed that, through robust multi-sectoral design, we were able to consider and address many of the factors in our systems framework in a coordinated and harmonized way. This suggests an overlap between systems thinking, multi-sectoral approaches, theories of behavior change, and principles of good program design.

SPRING focused our attention on policy, governance, inputs and services, communication, taking into consideration the sociocultural environment. Infrastructure and markets were not considered high priorities, while financing and household resources were largely outside of our mandate (see figure 2 here and figure 3 on the next page).

We developed an effective partnership around information and communication with the Agro Horizon project, which helped us promote consistency in programming, capitalize on synergies, and ensure that factors that we weren't able to address directly were addressed by others. However, collaboration and coordination was challenging due to varying project cycles and limited joint planning.

Figure 2. SPRING's Level of Engagement with Each Factor of the Systems Framework in the Kyrgyz Republic



In conclusion, this exercise shed light on what already works well in multi-sectoral nutrition design, implementation, and monitoring as well as what could be strengthened by applying systems thinking.

### **Recommendations for Systems Thinking in Nutrition Programming**

Based on this exercise, we have the following simple recommendations to apply systems thinking for nutrition:

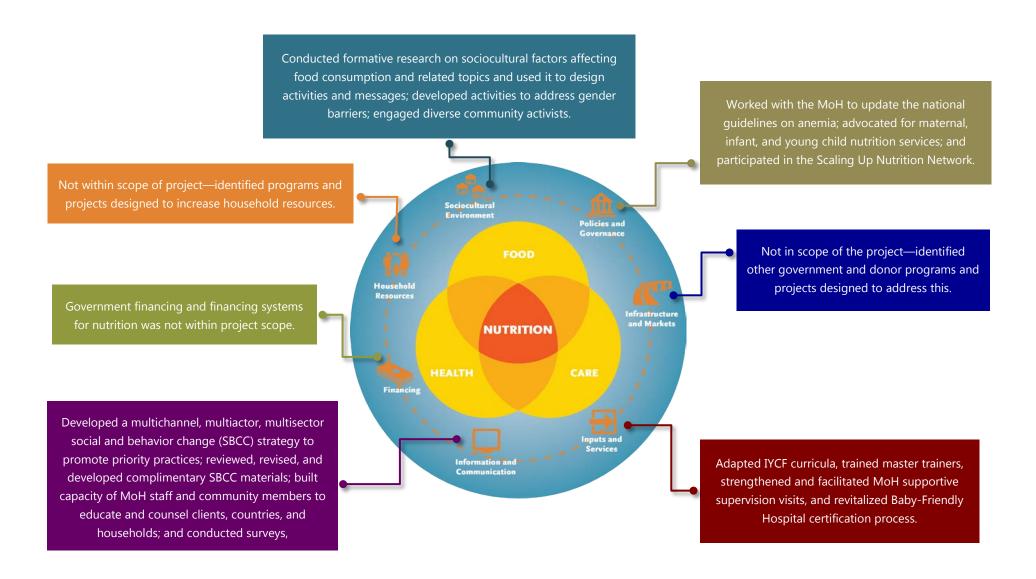
- 1. Apply systems-thinking to design, implement, monitor, and evaluate programs. This means considering, if not addressing, each factor and its interactions, processes of change, and consequences as well as periodically mapping programs.
- 2. Ensure that projects are implemented for a sufficient time to apply systems thinking.
- 3. Provide technical leadership and structural support for projects to apply systems thinking during planning and implementation.
- 4. Strengthen coordination and collaboration across sectors, departments, and organizations and with existing structures to fill gaps.

With an increasing number of countries adopting multi-sectoral nutrition policies, we must consider how such policies can have the greatest impact. The application of systems thinking has the potential to strengthen multi-sectoral and multi-stakeholder programming for nutrition.

### Additional Resources

Resources for the application of systems thinking for nutrition are limited at this time. USAID's technical note, The 5Rs Framework in the Program Cycle, describes a methodology for supporting sustainability and local ownership in projects and activities through ongoing attention to local actors and local systems. +Acumen offers online courses and a Systems Practice workbook to apply systems thinking to address complex, dynamic challenges. In addition, the USAID-funded Child Survival Technical Support Plus (CSTS+) Project prepared a manual that emphasizes systems thinking, <u>Taking the Long View: A Practical</u> Guide to Sustainability Planning and Measurement in Community-Oriented Health Programming. This guide is for project managers, planners, and evaluators of health projects in developing countries. Finally, SPRING's Systems Thinking Assessment Tool will be available online soon at https://www.springnutrition.org/technical-areas. https://www.spring-nutrition.org/technical-areas/systems.

Figure 3. Systems Assessment of SPRING's Work in the Kyrgyz Republic: Summary Findings



### References

- Administrative Committee on Coordination/Subcommittee on Nutrition of the United Nations (ACC/SCN). 2004. Fifth Report on the World Nutrition Situation: Nutrition for Improved Development Outcomes. Geneva: ACC/SCN.
- D'Agostino, A., J. Wun, A. Narayan, M. Tharaney, and T. Williams. 2014. Defining Scale-Up of Nutrition Projects. Arlington, VA: USAID/ Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) Project.
- Diamond J. 2005. Collapse: How Societies Choose to Fail or Succeed. New York: Penguin.
- Food and Agriculture Organization (FAO). 2013. State of Food and Agriculture. Rome: FAO.
- International Food Policy Research Institute (IFPRI). 2016. Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030. Washington, DC: IFPRI.
- Levinson F. J., Y. Balarajan, and A. Marini. 2013. Addressing Malnutrition Multisectorally: What Have We Learned from Recent International Experience? New York, NY: UNICEF and MDGF.
- National Statistical Committee of the Kyrgyz Republic (NSC), Ministry of Health—Kyrgyz Republic (MOH), and ICF International. 2013. Kyrgyz Republic Demographic and Health Survey 2012. Bishkek, Kyrgyz Republic, and Calverton, MD: NSC, MoH, and ICF International.
- Pomeroy-Stevens, Amanda, Madhukar B. Shrestha, Monica Biradavolu, Kusum Hachhethu, Robin Houston, Indu Sharma, and Jolene Wun. 2016a. Pathways to Better Nutrition in Nepal: Final Report. Arlington, VA: Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project.
- Pomeroy-Stevens, Amanda, Nancy Adero, Alexis D'Agostino, Hannah Foehringer Merchant, Abel Muzoora, Daniel Lukwago, Diana Tibesigwa, Edgar Agaba, Lidan Du, and Ezekiel Mupere. 2016b. Pathways to Better Nutrition in Uganda: Final Report. Arlington, VA: Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project.
- SPRING. 2015. A Systems Thinking and Action for Nutrition: A Working Paper. Arlington, VA: USAID/ Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project.
- SPRING. 2016. Pathways to Better Nutrition Case Studies Evidence Series. https://www.springnutrition.org/publications/series/pathways-better-nutrition-country-case-studies.
- United Nations (UN). 1998. "United Nations 'Indispensable Instrument' for Achieving Common Goals, Says Secretary-General In Report To General Assembly," Press release, September. http://www.un.org/press/en/1998/19980921.sg2048.html.
- United Nations Children's Fund (UNICEF). 1990. Strategy for Improved Nutrition of Children and Women in Developing Countries. New York, UNICEF.
- ——. 2013. Improving Child Nutrition: The Achievable Imperative for Global Progress. New York: UNICEF.

USAID. 2014a. <i>Multi-Sectoral Nutrition Strategy 2014-2025</i> . Washington DC: USAID. http://www.usaid.gov/sites/default/files/documents/1867/USAID_Nutrition_Strategy_5-09_508.pdf.	
——. 2014b. Local Systems: A Framework for Supporting Sustained Development. Washington DC: USAID.	
World Health Organization (WHO). 2010. Monitoring the Building Blocks of Health Systems: A Handboo of Indicators and their Measurement Strategies. Geneva, Switzerland: WHO. http://www.who.int/healthinfo/systems/monitoring/en/.	ık