

# Tools for Anemia Programming: An Immersion Workshop

Meeting Report February 21 & 22, 2018





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## **ABOUT SPRING**

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a seven-year USAID-funded cooperative agreement to strengthen global and country efforts to scale up high-impact nutrition practices and policies and improve maternal and child nutrition outcomes. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, The Manoff Group, Save the Children, and the International Food Policy Research Institute.

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**COVER PHOTOS:** SPRING

# Contents

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- Background..... 1
- Workshop Structure & Details..... 2
- Discussion..... 3
- Future Use of SPRING's Anemia Tools ..... 4
- Workshop Evaluation..... 5
- Annex 1. Workshop Agenda..... 8
- Annex 2. Participants List ..... 9
- Annex 3. Landscape Analysis Guidance, Case Study ..... 10



# Background

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The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project developed the Landscape Analysis (LA) Guidance Tool and District Assessment Tool for Anemia (DATA) to assist countries in strengthening anemia programming at the national and district levels. The LA guidance provides information for conducting a context assessment using primary and secondary data sources to gather country-specific information on anemia prevalence, contributing factors, and current policies and interventions. The guidance helps stakeholders develop a context-specific understanding of anemia and identify priority areas to guide anemia efforts at the national level. SPRING developed the LA guidance based on experiences conducting landscape analyses in Ghana, Sierra Leone, and Uganda. We designed DATA to assist district-level program managers and planners in assessing the main factors causing anemia in their district, identify enablers and barriers to addressing anemia, and prioritize interventions. The DATA toolkit includes guidance for facilitating a workshop with multi-sectoral district managers during which participants enter data into a Microsoft Excel-based tool that creates easy-to-read dashboards. These visual snapshots help stakeholders better understand the anemia situation in their local context. SPRING piloted DATA in Nepal, Ghana, and Uganda to generate district-specific assessments to inform anemia programming.

To share these two resources for addressing anemia with U. S. Agency for International Development (USAID) bureaus and implementing partners, SPRING held an interactive, hands-on training in Washington, D.C. to consolidate program learning from the implementation of the tools in countries. The training gave participants a comprehensive understanding of the tools and demonstrated how countries can use them to plan anemia interventions at both national and district levels. The dissemination to a broader audience was planned with the goal of ensuring the dissemination and use of these tools in many countries.

# Workshop Structure & Details

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The workshop spanned two days, with the first day focused on LA and the second day dedicated to DATA. The morning sessions introduced the tools, including the rationale for their development and countries' experiences using them. The afternoons involved participatory activities that required participants to assume various roles and complete intricate case studies using the tools. Interactive posters added an opportunity for participants to plug in the information from the case studies and visualize the synthesis of the data. We showed the participants an award-winning video that SPRING has produced on DATA. To enhance the experiential learning, the meeting room included a gallery of photographs and quotes from country partners where SPRING implemented the tools, allowing participants to delve deeper into users' perspectives. We reserved the last session of each day for participants to share the findings from the case studies, and discuss the wider implications of these tools on their work. We also included a number of shorter, warm-up and energizer activities interspersed through the day to keep participants engaged and motivated. To share SPRING experiences with the participants, we introduced anemia and the tools through four different presentations:

"The two days really broadened my view of anemia. I always knew it was an issue that required multisectoral strategy but I didn't fully understand the degree. I think going through exercises like this is really beneficial, especially for those who don't always work directly with anemia."

—workshop participant

1. **Anemia – An Overview:** The first presentation of the workshop gave the participants a technical foundation for the workshop with information on anemia, explaining the multitude of contributing factors and consequences of anemia, and emphasized the need for a context-specific and multi-sectoral approach to reduce anemia.
2. **Guidance on Conducting Landscape Analyses for Anemia:** This presentation in the morning of the first day introduced the LA guidance, which provides national-level stakeholders with step-by-step information on conducting a landscape analysis for anemia using a systematic process for gathering information on the context-specific causes, and anemia related policies and programs.
3. **Understanding Anemia in Sierra Leone:** SPRING presented its experience supporting the Ministry of Health and Sanitation in Sierra Leone conduct a LA, which found that causes such as inflammation and malaria—not iron deficiency—acted as major contributors to anemia. The findings from the Landscape Analysis catalyzed national efforts to address anemia, including the establishment of the National Anemia Working Group and development of a national strategy for the prevention and control of anemia.
4. **District Assessment Tool for Anemia Overview:** The only presentation on the second day introduced DATA, an Excel-based tool developed for use during a two-day facilitated workshop with district-level stakeholders.

Seventeen participants attended the workshop. These participants represented a range of sectors, departments, and agencies, including USAID Washington, USAID/Jordan, PATH, Palladium, Save the Children, FHI360/FANTA, and USAID/PMI. The full, two-day schedule is in Annex 1. The full list of attendees is included in Annex 2. The case studies for LA are in Annex 3, and for DATA in Annex 4.



# Discussion

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We gave participants an opportunity to ask questions and engage with the material during each session, which resulted in interesting discussions on numerous topics, including—

- the reasons for the lack of progress in reducing anemia rates worldwide; relating this to the multifactorial nature of anemia and the growing scientific evidence about anemia and related risk factors over the last couple decades
- specific roles of genetics and inflammation in causing anemia and what can be done programmatically to address these issues
- issues related to the validity and reliability of hemoglobin measurement (a topic of emerging importance), and how to be aware of differences in anemia found across surveys that are conducted in the same country (i.e. Demographic Health Survey, Micronutrient Survey, etc.)
- ways to address discordance in anemia-related information from differing sources, or altogether lack of anemia-related information
- how DATA is useful to understand the context-specific issues in each district (which may not mirror the national-level picture)
- approaches to customizing DATA, a global tool, to district contexts in different countries
- approaches to monitoring district-level progress related to anemia after DATA implementation
- relating DATA to general multisectoral action for nutrition at the district-level
- engaging the necessary champions/leaders, existing coordination bodies, and stakeholders at the district-level to address anemia using DATA, using examples from SPRING's implementation in Ghana, Nepal, and Uganda
- discordance between policies to programs for the various anemia-related interventions; including examples of where policies are in place but no program in place, and where there is no policy, but districts have started implementing programs (e.g. delayed cord clamping or micronutrient powders).



Photo 1: Workshop participants break into small groups to discuss gaps in current anemia-related policies using a fictional district in Nepal as a case study

# Future Use of SPRING's Anemia Tools

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The workshop's final activity asked participants to write down responses on notecards to two questions:

- List 1-3 ideas for using LA & DATA in your work.
- Do you view anemia differently now? If yes, how so?

In written responses to the first question on using the LA and DATA tools in their respective fields, participants responded along similar lines. Most participants agreed that they could think of ways to use the tool within their own sectors. One participant suggested that it could be used in countries where they are trying to improve general nutrition during pregnancy, and another said that it could be added to the malaria in pregnancy (MIP)

"I LOVED the anemia workshop and I loved that team, I really hope that we can do an anemia assessment using the tool in Nigeria. I was really impressed with the delivery team, the quality of the tool, the trainers—it was really impressive!"

*--workshop participant*

district assessment. A third participant suggested showing the LA and DATA tools to her organization's monitoring and evaluation team and "discussing integration possibilities". Finally, one participant mentioned that the tools had general applicability to other conditions and diseases.

Another theme that stood out in participant responses was the tools' usefulness in bringing together multiple sectors and creating joint plans. One participant said that the anemia assessment could be incorporated before and during work planning, another hoped that it could mobilize the districts and be

used for multi-sectoral coordination, and a third said that the user-friendly nature of the DATA tool would work well in a decentralized setting. One more participant said that the tools could "help in building trusted and engaged relationships with in-country stakeholders".

Participants had similar responses to the questions "do you view anemia differently now?" and "how so?" Participant responses to the first question were a uniform affirmation, saying that their knowledge of anemia had expanded because of the workshop. When asked for details, participants stated that they now understand anemia to be associated with infection, not just iron deficiency. They pointed out that different countries, regions, and districts all have varying experiences with what contributes to anemia prevalence, and so reducing anemia will require specific targeted programs, which in turn requires multi-sectoral coordination.

As an indicator of impact of the workshop, SPRING also received two expressions of interest in the immediate use of the tool from two countries represented at the workshop - Jordan and Nigeria.

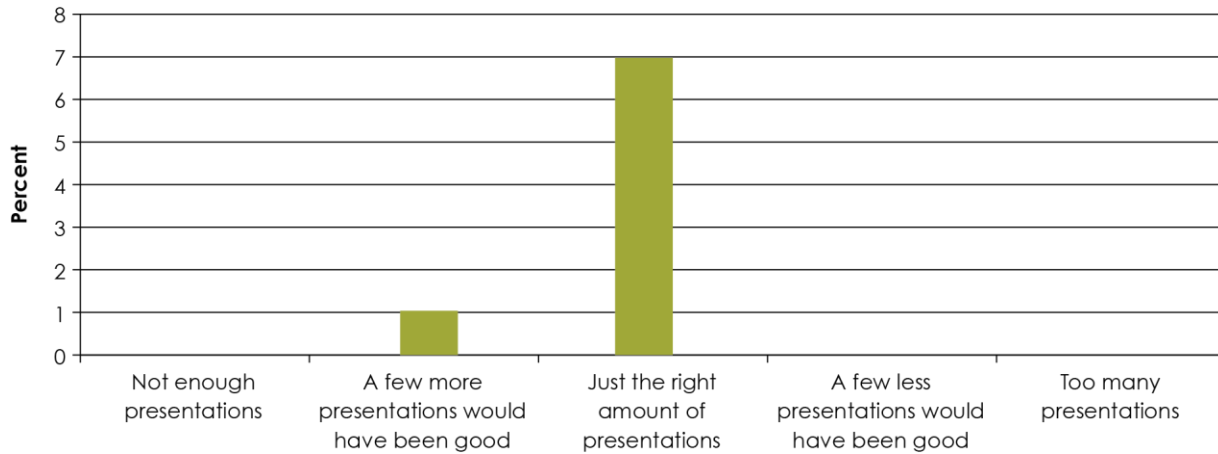


Photo 2: Workshop participants take part in an interactive activity to review what they learned

# Workshop Evaluation

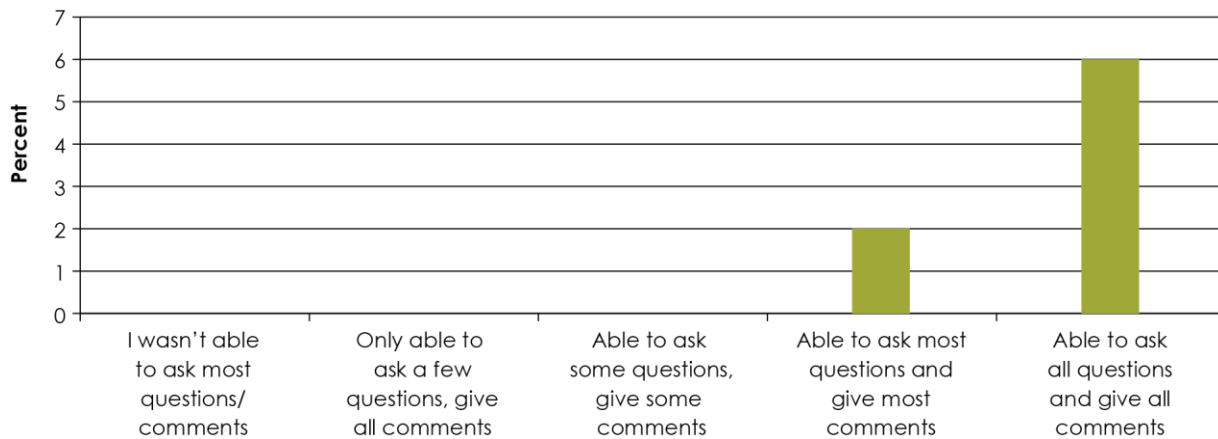
Participants were very satisfied with the structure of the workshop, with 88% reporting that there were “just the right amount of presentations” (Figure 1) and 100% that there was the “right amount of group work”.

**Figure 1. How satisfied were you with the number of presentations delivered?**

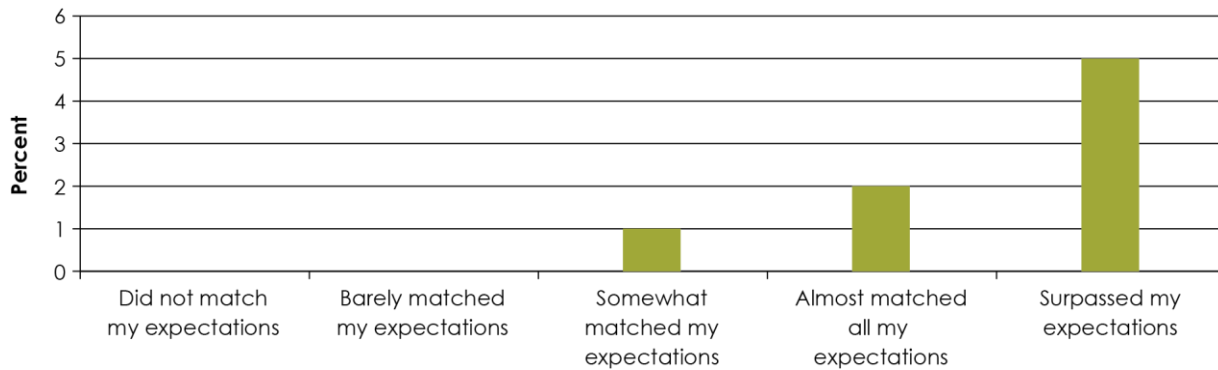


75% of participants felt they were able to ask all questions and make all comments during the workshop (Figure 2), and 63% felt the content/activities surpassed their expectations based on the information they received in advance. The remaining participants reported that it almost and somewhat matched expectations (Figure 3).

**Figure 2. Were you able to ask all your questions and have your comments heard?**



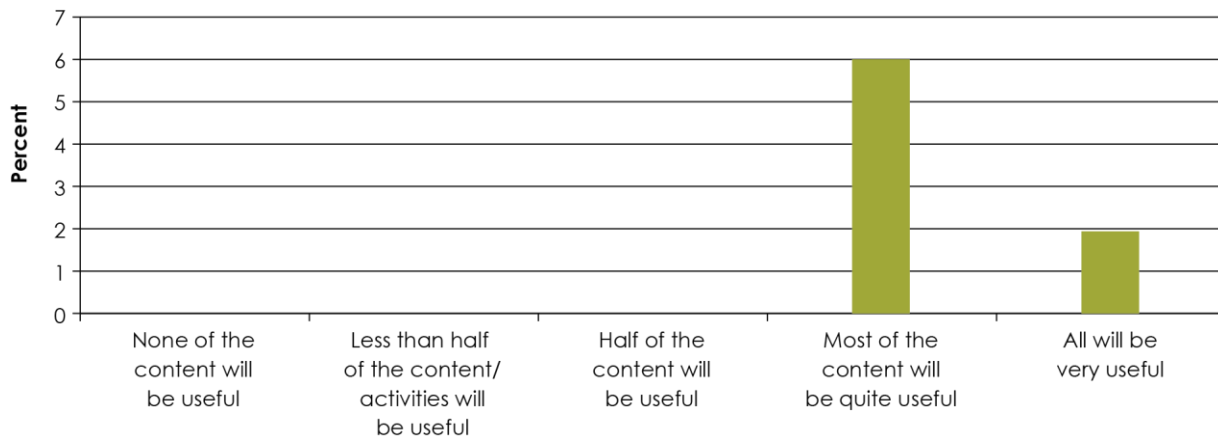
**Figure 3. Did the actual content and activities meet your expectations based on the information you received in advance?**



All participants felt they had enough time to meet and talk with other participants during the workshop. This response was most likely influenced by the inclusion of energizer activities and group work that allowed members of the group to get to know one another by working together

The majority of participants reported that most of the content from the workshop will be quite useful, and two participants felt that all the content will be useful in their work setting (Figure 4).

**Figure 4. How useful did you find the content that was presented in the orientation?**



“This training was incredibly practical, well-paced, user friendly, and combined a great mix of science, evidence, data, along with the “art” of building local capacity, identify policy champions to take-up specific anemia action plans. It also addressed the conundrum of “work-arounds” for filling in gaps in data, when the common sources (DHS, micronutrient supplementation reports) do not reveal the data that we need at the district level.”

*--workshop participant*

Participants rated the online communications, food and services, group session instructions, and the overall workshop as “very good” or “exceptional”. When participants were asked how they would like to engage in further discussions about the usage of the DATA and LA tools, responses varied. Several noted that they preferred online forums, while others picked email updates, webinars, or individual communications.

**Table 1. How would you like to engage in continued discussions about usage of the DATA and LA tools? (Select all that apply)**

<b>Forum</b>	<b>Number of participants</b>
Online Forums	3
Email updates	4
Webinars	4
Individual communication with USAID staff	3

# Annex 1. Workshop Agenda

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## TOOLS FOR ANEMIA PROGRAMMING: AN IMMERSION WORKSHOP

FEBRUARY 21 & 22, 2018 | JSI RESEARCH & TRAINING INSTITUTE; ARLINGTON, VIRGINIA

### AGENDA

#### FEBRUARY 21

08:30–09:00	REGISTRATION AND BREAKFAST
09:00–09:15	Welcome
09:15–10:00	Introductions and Expectations of the Workshop
10:00–10:45	Anemia Overview
10:45–11:00	BREAK
11:00–11:15	Review Exercise
11:15–11:45	Landscape Analysis Guidance Overview
11:45–12:15	Landscape Analysis of Anemia and Anemia Programming in Sierra Leone
12:15–12:30	Landscape Analysis Group Work
12:30–13:30	LUNCH
13:30–14:30	Landscape Analysis Group Work <i>(continued)</i>
14:30–15:30	Landscape Analysis Group Work Out-Brief
15:30–15:40	DATA Teaser
15:40–16:00	Closing the Day

#### FEBRUARY 22

08:30–09:00	ARRIVAL AND BREAKFAST
09:00–09:15	Recap of Day One
09:15–10:00	DATA Overview
10:00–10:15	BREAK
10:15–11:00	Tool Exploration Group Work
11:00–12:30	DATA Group Work
12:30–13:30	LUNCH
13:30–14:30	DATA Group Work Out-Brief
14:30–15:15	DATA and Landscape Analysis: Future Implications
15:15–15:30	Closing Remarks



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USAID's multi-sectoral nutrition project



## Annex 2. Participants List

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## Annex 3. Landscape Analysis Guidance, Case Study

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### Risk Factors for Anemia (Part 1)

**Your role:** You are a group of Malawian university researchers who are members of the newly established National Anemia Working Group (NAWG). The NAWG was established by the Government of Malawi and is comprised of representatives from various government ministries (health, agriculture, water and sanitation, education, gender, etc.), donors, United Nations agencies, non-profit organizations, the private sector and academia to guide multisectoral efforts for anemia reduction in the country.

**Your task:** One of the NAWG's first tasks is to 1) identify the main causes of anemia and 2) use that information to determine how anemia-related policies and interventions can be altered to be more effective in the Malawi context. As researchers, you have been asked to form a subgroup and head this work, using available evidence to piece together Malawi's profile of anemia risk factors. Specifically, you have been asked to:

- **Categorize the severity of anemia as a public health problem** for 1) children under five and 2) women of reproductive age in Malawi. Be sure to note any differences between various socio-economic groups (wealth, urban/rural, region, etc.).
- **Assess the main causes of anemia**, again being sure to note any differences between various socio-economic groups (wealth, urban/rural, region, etc.).
- **Flag any gaps in data and make recommendations** for future monitoring and research activities.

**Your resource:** Use the results from the Malawi National Micronutrients Survey 2015-16 as your primary data source, though you're also free to browse the web for supplemental information if time permits.

**Your tools:** Use the Case Study Worksheet to guide you through this exercise, and refer to the book "Understanding Anemia: Guidance for Conducting a Landscape Analysis", and the module on *Step 1: Characterize Anemia Prevalence (see page 12)* and *Step 2: Establish Causes of Anemia (see page 18)* to select the appropriate indicators for anemia and risk factor prevalence.

**Your output:** Once you have compiled your data, summarize your main findings on the flip chart that's provided to you--you'll have 40 minutes for this first part. Later, in the second part of this activity, you will collaborate with another NAWG subgroup that has worked to review the status and coverage levels of anemia-related interventions in Malawi. Together, you will develop a five minute presentation for the NAWG in which you will propose a set of recommendations to include in the National Strategy for Anemia Reduction.

### Anemia-related Interventions (Part 1)

**Your role:** You are a group of Malawian government technical leads overseeing the portfolio of development interventions being implemented in the country, and you are also members of the newly established National Anemia Working Group (NAWG). The NAWG was established by the Government of Malawi and is comprised of representatives from various government ministries (health, agriculture, water and sanitation, education, gender, etc.), donors, United Nations agencies, non-profit organizations, the private sector and academia to guide multisectoral efforts for anemia reduction in the country.



**Your task:** One of the NAWG's first tasks is to identify the status (including coverage) of anemia-related interventions and use those findings to determine how anemia-related policies and interventions can be altered to be more effective in your context. As government technical leads, you've been asked to work together with colleagues from other sectors, using available evidence to describe Malawi's landscape of anemia interventions. Specifically, you're asked to:

- **Assess the coverage level of anemia-related interventions**, specifically as they pertain to (1) children under five and (2) women of reproductive age. When doing this, be sure to note differences between socio-demographic groups, if any.
- **Flag any gaps in data and make recommendations** for future monitoring and research activities.

**Your resource:** Use the results from the Malawi Demographic and Health Survey (DHS) 2015-16 as your primary data source, though you are also free to browse the web for supplemental information if time permits.

**Your tools:** Use the Case Study Worksheet to guide you through this exercise, and refer to the book "Understanding Anemia: Guidance for Conducting a Landscape Analysis", and the modules *Step 4: Assess Status of Anemia Intervention* (p. 52) to select the appropriate indicators for the coverage of interventions.

**Your output:** Once you have compiled your data, summarize your main findings on the flip chart that's provided to you—you will have 40 minutes for this first part. In the second part of this activity, you will collaborate with another NAWG subgroup that has been working to review the prevalence of anemia and anemia risk factors in Malawi. Together, you will develop a five-minute presentation for the NAWG in which you will propose a set of recommendations to include in the National Strategy for Anemia Reduction.

## Landscape Analysis Case Study (Part 2)

During the first part of this activity, you worked within your teams of researchers or government technical leads to uncover the main causes of anemia and the status of anemia-related policies and interventions in your country. Next, you will work together to combine your findings and prepare a five minute presentation for your fellow NAWG members.

**Your task:** Prepare a five-minute presentation for your fellow NAWG members detailing 1) the findings from the first part of this activity and 2) evidence-based recommendations for anemia-related policies and programming in your country. Given that you have a limited amount of time, be selective about the information you choose to present and/or focus on. Organize your group members as you see fit and structure your presentation in a way that you feel makes your message most compelling to your audience!

As you prepare your presentation, start by comparing the findings from the two groups (i.e. prevalence of anemia, anemia risk factors, and anemia-related interventions), and consider the following questions

- Are the appropriate interventions in place to address the main causes of anemia (or are the interventions not appropriately matched to the context-specific causes)? If not, which interventions should your country focus on to improve coverage and reduce anemia?
- Do the anemia prevalence, risk factor burden and/or coverage of anemia-related interventions differ based on socio-demographic differences (wealth, urban/rural, region, etc.)? If so, which groups need targeted attention?
- Is there an enabling policy environment? Are some important anemia-related policies missing in your country?
- What pertinent data is still missing—data that could help you further target your strategy for anemia reduction and should be the focus of future research and monitoring efforts?

**Your resources:** Use the flip charts you prepared in the first part of this activity, which summarize your findings around anemia prevalence, anemia risk factors, and status and coverage of anemia-related interventions. In addition, you now have at your disposal a summary sheet of existing, pending and missing anemia-related policies in your country.

## Annex 4. District Assessment Tool for Anemia, Case Study

### Background: District X, Province 2, Terai Ecological Zone, NEPAL

District X is located in the central development region of province 2 in the Terai ecological zone of Nepal. The Terai covers 17% of Nepal's total land area with 48% of the country's population and 56% of total cultivated land. It is the warmest and most humid region of the country, with temperatures up to 40 degrees Celsius in the summers, and long monsoon season from June to September. The geography of the region varies: there are hills in the north and flatlands in the south, which border India. Four major rivers, Bagmati, Hardi, Lakhandei, and Jhim, originate from the hills and flow down the plain into India.

The total district population is 660,000. The district is comprised of 77 village development committees (VDCs). The male to female ratio in this district is close to 1:1.5 because of men migrating and working in India and the Middle East. The literacy rate is 37% and the female literacy rate is 25%.

Agriculture is the largest source of livelihood, with more than half the working population employed in this sector, but the total household income from this sector has been gradually declining in recent years. Rice is the main crop, but wheat, maize, barley, and oilseeds are also grown. Non-farm activities are mostly in the trade sector in the urban area and manufacturing sector in the rural areas.

The district has one district hospital, one district medical store, five primary health care clinics, and ten health outposts. Despite the government's approach to provide equitable primary health care to the majority of residents, the health service allocation and health care seeking behaviors are poor. Government health outposts often remain vacant, and thus people tend to seek healthcare through informal systems and purchasing medication across the border in India.

### Anemia Prevalence

Anemia Prevalence	Women of Reproductive Age (Nepal DHS 2016)	Children Under Five (Nepal DHS 2016)
National	41%	53%
Regional	58%	59%
District	?	?

### Additional information:

Anemia prevalence among women of reproductive age was 36% in 2006 and 35% in 2011. Anemia prevalence among children under five was 48% in 2006 and 46% in 2011. (Nepal DHS).

There is no quantitative data for district level anemia prevalence. District stakeholders can consider the regional prevalence rates, if they believe they are comparable. They may also look at anemia diagnosed at pregnancy during ANC. Facility based data show that about 36% of pregnant women are anemic, and the majority of pregnant women attend at least one ANC in the district where anemia is tested.

If using a qualitative assessment when categorizing anemia prevalence in the district, the categories are: low, average, or high.

## Anemia Risk Factors

Risk Factors	Women of Reproductive Age	Children Under Five
Iron Deficiency (National-level indicator)*	?	?
Vitamin A Deficiency (National-level indicator)*		?
Malaria (District-level indicator)**	?	?
Helminth (District-level indicator)***	?	?

There is no quantitative data for anemia risk factors. In order to qualitatively assess these indicators, district officers can consider the following:

\*For vitamin A and iron deficiency prevalence (national level indicators), consider the diet in the population (intake of micronutrient-rich foods). For vitamin A deficiency, consider if the vitamin A program has been very successful in Nepal. For iron deficiency, consider how big of a problem malaria is in the district.

\*\*For malaria (district level indicator), consider that the Terai region is hot and humid, and malaria is a problem during the rainy season, but only in eight out of the 77 VDCs.

\*\*\*For helminth (district level indicator), consider that roundworm (*Ascaris lumbricoides*) and *Giardia lamblia* are prevalent in children, and that an NGO survey of the area showed that almost half of children had a helminth infection. Consider the water and sanitation situation, and the coverage of deworming programs.

If using a qualitative assessment when categorizing malaria and helminth prevalence in the district, the categories are: High, Medium, Low, None.

## National Policies

Policy	Status
National policy around providing IFA supplements for pregnant women	
National policy around providing IFA supplements for women of reproductive age, including adolescent girls	
National policy around providing micronutrient powders to children	
National policy around providing high-dose vitamin A supplementation to children	
National policy around infant and young child feeding (IYCF) practices	
National policy for the prevention and treatment of malaria	
National policy around deworming children	
National policy around deworming pregnant women	
National reproductive health strategy that includes information on birth spacing and family planning methods	

National policy on delayed cord clamping	
National policy for promotion of water and sanitation	
National agricultural policy with one or more of these nutrition sensitive components: value chain development for enhanced nutrition, support for dietary diversity, home gardens, and/or livestock breeding and animal husbandry programs	

## Nutrition Sector

Nepal's national **nutrition** program comprises of national level programs and several programs that are not yet at scale nationwide. The national programs include: growth monitoring and counselling, prevention and control of iron deficiency anemia, vitamin A deficiency and iodine deficiency disorders, control of parasitic infestation by deworming, and mandatory flour fortification in large roller mills. Other programs include: maternal, infant, and young child nutrition, integrated management of acute malnutrition, micronutrient powder (MNP) distribution linked with infant and young child feeding (IYCF), school health and nutrition, vitamin A supplementation to address the low coverage in 6–11 month olds, and Multi-sector Nutrition Plan (MSNP).

### Iron and Folic Acid Supplementation

**IFA supplementation** to pregnant women is provided through female community health volunteers (FCHVs) and the program covers all districts in Nepal. The intensification program has improved coverage over the last few years, although compliance with taking 180 tablets during pregnancy and 45 tablets postpartum remains an issue. The coverage of first time iron distribution is consistently high nationwide, at over 80 percent, but continuation of supplementation needs to be improved. There is a relatively new program providing IFA to women of reproductive age, but it has not reached all districts.

#### Available data on IFA in District X:

According to health facility records, 13,665 number of pregnant women received IFA for first time, out of 15,750 target number of pregnant women.

According to the Annual Health Report, 51% of pregnant women received 180 tablets of IFA.

There is no program distributing IFA to WRA in the district.

### Micronutrient Powders

Although there is no national policy in place for **micronutrient powders** (MNP), about 15 districts have a program in place, including X district. The MNP (Baal Vita) is distributed at health facilities and by FCHVs. First cycle and third cycle distribution information is entered into HMIS.

#### Available Data on MNP in District X:

In the annual health report, in the first cycle 20,060 children out of the target population of 21,000 received MNP.

In the third cycle, 7,600 children out of target population of 21,000 received MNP.

### Vitamin A Supplementation

The national **vitamin A** program, consists of biannual supplementation of high dose vitamin A capsules to 6-59 month olds through FCHVs and post-partum supplementation for mothers within 42 days of delivery. The vitamin

A supplementation program has been a public health success story, with high coverage across the country, but slightly lower coverage in children 6-11 months, who have been harder to reach. The strategy is to reach them as they turn 6 months old to get the first dose at the health facility or through FCHV (and then second dose at biannual campaign).

### **Available data on vitamin A supplementation in District X:**

Annual health report raw data shows that 16,412 children (6-11 months old) received vitamin A supplements and 102,904 children (12-59 months old) received vitamin A supplements.

Annual health report analyzed data shows that District X achieved a 100% coverage rate in children 6-59 months (which covers 2 rounds for each child).

### **Breastfeeding Practices**

As part of the growth monitoring and promotion program which includes IYCF counseling for caregivers of children under 24 months, mothers receive counseling on **exclusive breastfeeding** for the first six months and **continued breastfeeding** to two years of age or beyond, with appropriate complementary feeding.

### **Available data/information on breastfeeding practices in District X:**

Facility data show the % of children aged 0-6 months registered for growth monitoring, who were exclusively breastfed for the first six months: 92%.

There is no quantitative data on continued breastfeeding, but in the district, it is common for children to breastfeed up to 2 years.

### **Disease Control Sector**

The Community Based Integrated Management of Childhood Illness (CB-IMNCI) program was started in 1997 and nation-wide scale up completed in 2009. It is an integrated package of child survival interventions and addresses major newborn care conditions including birth asphyxia, bacterial infection, jaundice, hypothermia, low birth weight, and encouragement of breastfeeding. It also addresses the major illnesses of 2 to 59 month old children — pneumonia, diarrhea, malaria, measles and malnutrition.

### **Malaria**

In X District, malaria incidence varies geographically. Eight out of the 77 village development committees (VDCs) which comprise the district, are selected as the target group for malaria prevention and control programs, because they are most vulnerable, based on the prevalence of malaria. In these eight VDCs, there is a program for intermittent preventive treatment of malaria in pregnancy (**IPTp**), a program for distribution of insecticide-treated nets (**ITN**), and a program for **active case management of malaria**.

### **Available information for malaria programs in District X:**

No quantitative data has been collected for IPTp in the target VDCs, but there is a supply issue and often the prophylaxis is not in stock.

No quantitative data has been collected for ITN distribution in the target VDCs, but is known that regular nets are more commonly available and used. Pregnant women from disadvantaged (DAG) families are prioritized to receive ITNs.

In terms of active case management of malaria, if a person comes to the health facility with symptoms, there is adequate diagnostic (using rapid diagnostic tests and also microscopic laboratory service at peripheral facilities), and proper protocols in place.

## Helminth Infection

Control of parasitic infection is part of the national nutrition program, and **deworming** is targeted to pregnant women and children 12-59 months old. Children are provided deworming alongside Vitamin A supplementation in the biannual campaigns. Under the antenatal care package, pregnant women are provided deworming tablets, along with tetanus toxoid and diphtheria immunization, iron folic acid tablets and malaria prophylaxis where necessary.

### Available information on helminth infection in District X:

Facility records show that 104,478 deworming tablets were given to children 12-59 months, which is a coverage of 100%.

Facility records show that 3,740 pregnant women received deworming out of a target of 5,004 women this year.

There are no supply issues with deworming medication.

## Reproductive Health Sector

The Family Health Division (FHD) of the Department of Health Services includes the following areas of responsibility: Reproductive health care (including safe motherhood and neonatal health), family planning, and female community health volunteers (FCHVs). The National Health Service makes available **modern methods of contraception** through health institutions at static clinics and through mobile outreach services. The contraceptive prevalence rate (CPR) is the main indicator for monitoring the achievements of the National Family Planning Programme. The CPR for the use of modern family planning methods remained at 43% nationally in 2015/2016 (Annual Health Report), the same as the previous year. However, the CPR captured in the HMIS excludes any contraceptives obtained through the private sector.

In the government health system, short acting reversible contraceptive methods (male condoms, oral pills and injectables) are provided at primary health care centers and health posts. FCHVs provide information and education to community people, and distribute condoms and resupply oral contraceptive pills. Long acting reversible contraceptive (services such as intrauterine contraceptive devices and implants) are only available in hospitals, primary health care centers and health posts that have trained providers.

### Available information on family planning in District X:

Use of modern family method is lower than the national average.

Health facility data show that the CPR is 34%: this also includes Depo, IUCD, pills, implants, sterilization, as well as condom use reported by men.

Health facility data show that the 28% of women of reproductive age are using a modern family planning method; this includes all modern methods of contraception reported by women only.

The National Safe Motherhood Programme (Aama Suraksha) aims to reduce maternal and neonatal morbidity and mortality and improve maternal and neonatal health through preventive and promotive activities and by addressing avoidable factors that cause death during pregnancy, childbirth and the postpartum period. Evidence

suggests that three delays are important factors for maternal and newborn morbidity and mortality in Nepal (delays in seeking care, reaching care and receiving care). Strategies include promoting birth preparedness and complication readiness, antenatal checkups and institutional delivery, and expansion of emergency obstetric care services. Delayed cord clamping is not part of the strategy.

### **Available information on reproductive health care (specifically delayed cord clamping) in District X:**

Percent of institutional deliveries in past year: 18%

Percent of deliveries by skilled birth attendant: 21%

There is no data for delayed cord clamping as it is not a current program, but some facilities do practice it, if they have been introduced to it by partner organizations.

### **Wash Sector**

In Nepal, water supply and sanitation functions are shared responsibilities of the central and local levels of government. The Department of Water Supply and Sewerage (DWSS) under this Ministry of Water and Sanitation is responsible for planning, implementation, operation, repair and maintenance of water supply and sanitation systems throughout the country. Nepal is also finalizing a "15 year Development Plan of Nepal WASH Sector" aligning with the Sustainable Development Goals (SDGs).

Within the national nutrition program, there is also a focus to improve safe water supplies, sanitation and housing conditions, for infectious disease prevention and control, and the link to improving nutritional status.

### **Available information on water and sanitation in District X:**

#### **Improved water source**

According to DWSS annual report, access to a water source is 82%, but access to an improved water source, such as pipe water, deep water tube well, is 42%.

There is arsenic in some of the water sources and some of the shallow tube wells are not considered a safe source of water.

#### **Household treatment of water for consumption**

There is a community-level treatment plan for water for consumption in the district, but not at the household. Treatment at the community level includes testing and then treating water with chlorine, and about 42% of the community water sources are considered safe to drink.

At the household-level, (point of use) treatment of water is only 9%, and this is usually boiled water. Families will boil water during the winter, but not boil in the hotter months.

#### **Handwashing facility with soap and water**

The district has started a handwashing with soap promotion program in 2007, with the government and NGOs supporting the program. Almost all people are aware of handwashing with soap, but there is no data on number of households with a handwashing facility and soap. Also, collecting observation data on handwashing at critical times is difficult and has not been reported.

#### **Access to improved sanitation**



Household level survey data shows that coverage of access to adequate sanitation (toilet) is 68%.

The household level survey uses a composite indicator for improved sanitation, which includes eight factors that need to be in place. The survey shows that use of improved sanitation is 20%.

## Agriculture Sector

Nepal's Agriculture Development Strategy 2015-2035 has a significant focus on the agriculture sector's role in contributing to improved livelihoods and food and nutrition security in the country. The Multi-sectoral Nutrition Plan also underscores the role of the agriculture sector in the following nutrition aspects: availability of quality foods at the household and community level through homestead food production combined with livestock assets creation; use of women's groups and credit incentives for poor women to carry out the homestead food production; the consumption of micronutrient rich foods especially by poor pregnant women and young adolescents and young children through social marketing and nutrition education; access to clean and cheap energy sources such as biogas and improved cooking stoves; education of men to share the workload and thereby reduce the workload of pregnant women and women with young children; strengthen capacity of the various agriculture sector institutions, including training of grassroots workers, and bolstering linkages with health and other sector workers.

The above strategic plans aim to increase consumption of diversified foods, especially animal source foods, particularly among pregnant women, adolescent girls, and young children.

### **Available information on promotion of micronutrient-rich and biofortified crops and home food production in District X:**

There are programs for the production of food, but no specific focus on micronutrient-rich crops. There is also no linkage being made from production to consumption of micronutrient-rich food.

There are programs to promote home food production. These programs include livestock, vegetable farming, and kitchen gardens (35%), cereal crop farming (90%), background poultry farming (35%), goat raising (55%), cow/buffalo raising for milk (84%), fish farming (15%), mushroom cultivation (5%). Percentages include households reached in the district.

Some of the programs face challenges with commodities, such as inputs for fish farming and milk production, and high quality seeds for vegetable farming and kitchen gardens.

Drought is a seasonal problem.

Training is needed for specific crops and specialized production such as developing fish hatcheries, and for commercialization of crops.

## Education Sector

The Ministry of Health and Ministry of Education developed the School Health and Nutrition Strategy in 2006 with a joint action plan for implementation of interventions. The improved use of school-based health and nutrition services, improved access to safe drinking water and sanitation, and skill-based health education are the core elements of the School Health and Nutrition Programme, which is being scaled up to all 75 districts in 2018 (from 54 currently covered districts). The current Joint Action Plan (2014-2018) calls for: annual health screening; biannual deworming of Grade 1–10 school children; a first aid kit box with refilling mechanism in all primary schools; iron-folate supplementation for 10-19 year old girls (this activity was piloted in several districts in

2015/16); hand washing facilities with soap in all schools; toilets in all schools; the use of the new attendance register in all schools; orient school management committees on facilitating health and nutrition activities; and child club mobilization on health and nutrition issues.

### **Available information on deworming in schools in District X:**

Deworming is conducted twice a year in schools, and it is supposed to cover the government community schools and other educational institutions.

The program covered 98,000 students out of 131,000 students in these schools in District X in the past year.

Coverage is affected by absenteeism, and by some private and religious schools (such as madrassas) that do not opt to carry out the program.

### **Available information on hygiene education in schools in District X:**

The coverage of hygiene education program is 43%. This is calculated using both government community schools and other educational institutions.

There are 431 community schools and a total of 740 educational institutions (including madrassas and other private schools).

Lack of adequate sanitation, improperly maintained toilets and handwashing stations is a hindrance to students carrying out hygiene practices that they learn during the education sessions.



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