

# Are Data Available for Tracking Progress on Nutrition Policies, Programs, and Outcomes in Sri Lanka?

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## Abbreviations

ANC	Antenatal Care
ARI	Acute Respiratory Infection
BMI	Body Mass Index
CHDR	Child Health and Development Record
eLENA	e-Library of Evidence for Nutrition Actions
GNMF	Global Nutrition Monitoring Framework
GSHS	Global School-based Student Health Survey
HAZ	Height-for-Age Z-Score
IDD	Iodine Deficiency Disorders
IFA	Iron and Folic Acid
IFPRI	International Food Policy Research Institute
IYCF	infant and young child feeding
KMC	Kangaroo Mother Care
MAM	moderate acute malnutrition
MNP	Micronutrient Powder
MSAPN	Multi Sector Action Plan for Nutrition
NCD	Noncommunicable Disease
NCDRFS	Non-Communicable Disease Risk Factor Survey
NIS	Nutrition Information System
NNMS	National Nutrition and Micronutrient Survey
NNMSPW	National Nutrition and Micronutrient Survey of Pregnant Women
NNP	National Nutrition Policy
NNSLW	National Nutrition Survey of Lactating Women
NSIYCF	National Strategy for Infant and Young Child Feeding
NSPAYH	National Strategic Plan on Adolescent and Youth Health
NSPCH	National Strategic Plan on Child Health
NSPMNH	National Strategic Plan Maternal and Newborn Health
OPD	Outpatient Department
ORS	Oral Rehydration Salts
PHM	Public Health Midwife
PNC	Postnatal Care
ROSA	Regional Office for South Asia
RUTF	Ready-to-Use Therapeutic Food
SAM	severe acute malnutrition

SDG	Sustainable Development Goal
SDHS	Sri Lanka Demographic and Health Survey
STEPS	STEPwise approach to Surveillance
UNICEF	United Nation Children's Fund
WASH	Water, Sanitation and Hygiene
WAZ	Weight-for-Age Z-Score
WFP	World Food Programme
WHO	World Health Organization
WHZ	Weight-for-Height Z-Score
WIFA	Weekly Iron and Folic Acid
ZN	Zinc

## Executive Summary

The World Health Organization (WHO) and other global nutrition and health agencies recommend nutrition actions throughout the life-course to address malnutrition in all its forms. In this report, we examined how Sri Lanka's nutrition policies and programs addressed the recommended nutrition actions, determinants, and outcomes. We reviewed population-based surveys to assess the availability of data on nutrition actions, nutrition outcomes, and determinants of these outcomes; we also assessed the data availability in administrative data systems for selected nutrition actions.

Our policy review identified a total of 53 recommended evidence-based nutrition actions, of which 47 nutrition actions were applicable in Sri Lanka; of these, 44 were addressed in the country's nutrition policies and programs. Nutrition actions not included in current policies and programs were food supplementation during adolescence and food supplementation for complementary feeding during early childhood. Although policies addressed daily or intermittent iron and folic acid (IFA) supplementation during preconception, the country's preconception care program has not yet implemented it. Sri Lanka's multisectoral nutrition plan recognized and addressed all key determinants of nutrition except women's status; the country's multisectoral nutrition plan and its national nutrition policy were found to also express an intent to track the progress of all Sustainable Development Goal (SDG) nutrition targets for maternal, infant, and young child nutrition and also the indicators related to non-communicable diseases (NCDs).

Our data review found that out of 44 actions that were addressed by Sri Lanka's policies and programs, the population-based surveys we reviewed contained data on only 22 actions; similarly, out of 15 selected actions we reviewed in the administrative data system, data was available on only five actions. Data was not available in either of the surveys on the following interventions: various types of counseling during pregnancy, optimal timing (delayed) of umbilical cord clamping, indicators related to newborn care and care of low-birth-weight infants, postpartum IFA supplementation and breastfeeding counseling and around delivery and in the postpartum period, counseling on infant and young child feeding (IYCF), growth monitoring and identification and treatment of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) during early childhood. In the administrative data source data was not available on IFA supplementation, nutrition counseling and advice on consuming IFA during pregnancy, IFA supplementation during lactation, micronutrient powders (MNPs) and zinc supplementation and on identification and management of SAM and MAM during early childhood. Population-based surveys contained data on most of the indicators on determinants and on all indicators on outcomes.

In conclusion, Sri Lanka's policy landscape for nutrition is robust; however, the gaps in data availability for tracking progress on nutrition are much greater than are the gaps in policies and programs for addressing recommended actions. Future population-based surveys and future modifications of other data systems should aim to fill the identified data gaps for nutrition actions.

# 1 Introduction

The World Health Organization (WHO) and other global nutrition and health agencies recommend nutrition actions throughout the life-course to address malnutrition in all its forms. It is anticipated that if evidence-based nutrition actions are implemented together with supportive policies and legislation, as well as functioning health, education, and social protection systems, countries will be able to improve the nutrition and health status of their women and children, from which economic development and increased equity will inevitably follow (Nguyen et al. 2020).

As global recommendations are updated based on available evidence, it is anticipated that national governments and partners will, in turn, build on these recommendations to update national policies and programs. In addition, as countries develop national and subnational nutrition strategies and align policies and programs to these strategies, it will be critical to efficiently track progress on the roll-out of nutrition actions. Alongside the tracking of progress on nutrition actions, countries must also know whether programs are on track to help achieve change in key determinants of nutrition status and, ultimately, in nutrition outcomes. However, little is known in the South Asia region about policy coherence with globally recommended actions. Even less is known about the degree to which countries are able to track their progress on interventions, determinants, and outcomes as they build their national nutrition strategies.

To address this gap, International Food Policy Research Institute's (IFPRI) South Asia Office, in collaboration with the UNICEF Regional Office for South Asia (ROSA) and others, examined the alignment of national nutrition policies and programs with recommended global nutrition actions, and assessed the availability of national data for tracking progress on nutrition. An overview was compiled of nutrition policies, programs, and data information systems for tracking nutrition actions, determinants, and outcomes in all the countries in the South Asia region, including Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. This report presents findings for Sri Lanka.

This review has two major objectives:

- 1) To assess the extent to which Sri Lanka's policies and programs a) address the recommended nutrition actions across the life-course; b) recognize both immediate and underlying determinants of nutrition; c) aim to tackle the key nutrition outcomes of relevance; and
- 2) To examine the availability of data for tracking progress on the nutrition actions, determinants, and outcomes in Sri Lanka.

It is intended that review findings will provide an evidence base that will further support national governments and their partners in identifying gaps in nutrition actions and improving data availability for tracking progress on nutrition actions, determinants, and outcomes.

## 2 Approach

Below we describe the approach and methods used for the policy review and for the data availability review. Our review focused primarily on the critical period from adolescence to early childhood, but, where relevant, we also included information on noncommunicable disease outcomes that were part of national strategies.

### 2.1 Methods: Policy Review

The policy review required three steps: first, to create a base framework of nutrition actions, determinants, and outcomes; second, to assemble national nutrition policies, strategies, and implementation guidelines; and third, to synthesize information on nutrition actions, determinants, and outcomes against the base framework.

#### 2.2.1 Identification of nutrition actions, determinants, and outcomes

Global guidance documents recommend several nutrition actions throughout the life-course, that is, in adolescence and preconception, during pregnancy, around delivery, in the postnatal period, and in early childhood. We identified a long list of recommended evidence-based nutrition actions from various sources (Box 1)

#### **Box 1. Sources of recommended evidence-based nutrition actions**

- *Essential Nutrition Actions: Mainstreaming Nutrition Through the Life-Course* (WHO 2019)
- *Guideline: Implementing Effective Actions for Improving Adolescent Nutrition* (WHO 2018)
- *Recommendations on Antenatal Care for a Positive Pregnancy Experience* (WHO 2016)
- *WHO Recommendations on Health Promotion Interventions for Maternal and Newborn Health 2015* (WHO 2015)
- *WHO Recommendation on Postnatal Care of the Mother and Newborn* (WHO 2013)
- *Making Pregnancy Safer: The Critical Role of the Skilled Attendant. A Joint Statement by WHO, ICM and FIGO* (WHO 2004)
- “Measuring the Coverage of Nutrition Interventions Along the Continuum of Care: Time to Act at Scale.” (Gillespie et al. 2019)
- *The Global Strategy for Women's, Children's and Adolescents' Health 2016–2020* (EWEC 2016)
- “Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?” (Bhutta et al. 2013)

Appendix 1 presents a full list of the identified nutrition actions by life-course. This list formed the frame of reference for the review of policies and programs.

To identify whether current policies and plans recognize and address immediate and underlying determinants of nutrition, we used the conceptual framework laid out under the following:

- “Strategy for Improved Nutrition of Children and Women in Developing Countries.” (UNICEF. 1991), and
- “Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries” (Black et al. 2008).

Finally, the reference list of nutrition outcome indicators came from nutrition targets under the Sustainable Development Goals (SDG) and additional targets included in the WHO’s Global Nutrition Monitoring Framework (GNMF) (WHO 2017). To ensure country specificity, we also included additional nutrition outcomes stated in the country strategies; some of these were not included in either the SDG or GNMF list of targets.

## 2.2.2 Nutrition policy and program documents

We identified the government-issued nutrition-relevant policies, strategic plans, program implementation and operational guidelines (as of May 31, 2020). We accessed these documents through online searches, UNICEF regional and country offices, and key informants working in the region. Our final list of documents for Sri Lanka included ten nutrition-relevant national policies/plans/strategies and 12 program documents, as well as program implementation guidelines currently in use (Box 2).

### **Box 2. List of documents reviewed**

#### **Policy/plan/strategy**

- *National Nutrition Policy of Sri Lanka* (Sri Lanka, Ministry of Healthcare and Nutrition 2010a)
- *The National Policy and Strategic Framework for Prevention and Control of Chronic Non-Communicable Diseases* (Sri Lanka Ministry of Health 2010b)
- *National Policy on Maternal and Child Health* (Sri Lanka, Ministry of Health 2012a)
- *Multi Sector Action Plan for Nutrition 2018–2025* (Sri Lanka, National Nutrition Secretariat, n.d.)
- *National Strategy for Infant and Young Child Feeding, Sri Lanka (2015–2020)* (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine, n.d.)
- *National Strategic Plan on Adolescent and Youth Health (2018–2025)* (Sri Lanka, Family Health Bureau 2018)
- *Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalence of Low Birth Weight in Sri Lanka: Health Sector Response* (Sri Lanka, Family Health Bureau 2013)

- *National Strategic Plan on Child Health in Sri Lanka (2018-2025)* (Sri Lanka, Family Health Bureau 2016a)
- *National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (2016-2020)* (Sri Lanka, Ministry of Health 2016b)
- *National Strategic Plan Maternal and Newborn Health (2017-2025)* (Sri Lanka, Family Health Bureau 2017)

#### **Program document/program implementation guideline**

- *Vitamin A Megadose Supplementation – Revised Schedule (General Circular No. 01–02/2009)* (Sri Lanka, Ministry of Health Care and Nutrition 2009)
- *Maternal Care Package: A Guide to Field Healthcare Workers* (Sri Lanka, Family Health Bureau 2011)
- *Management of Severe and Moderate Acute Undernutrition of the Children Under Five Years of Age: Manual for Health Workers in Sri Lanka* (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019)
- *National Guidelines for Newborn Care (Volume 1)* (Sri Lanka, Ministry of Health 2014)
- *Zinc (Zn) Supplementation in Managing Diarrhoea Among Children Under Five Years of Age (General Circular No. 02–161/2013)* (Sri Lanka, Ministry of Health 2013)
- *Guidelines on Infant and Young Child Feeding* (Sri Lanka, Ministry of Health 2007)
- *Guidelines on De-worming Children and Pregnant Women Against Soil Transmitted Helminths in Community Setting 2019–2022 (General Circular No. 01–58/2018)* (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2018)
- *Micronutrient Supplementation for School Children From the Year 2019 Onwards (General Circular No. 01–12/2019)* (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019)
- *School Health Programme* (Sri Lanka, Office of the Secretary Health, Nutrition and Indigenous Medicine 2016)
- *Iron supplementation for infants and young children (General Circular No. 01–68/2016)* (Sri Lanka, Ministry of Health 2016)
- *Strengthening Postpartum Family Planning Services Provided by Curative Institutions (General Circular No: 01–45/2017)* (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine)
- *Protocol for managing nutrition problems among under five children in the community (General Circular No. 02–18/2008)* (Sri Lanka, Ministry of Health 2008)

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### 2.2.3 *Synthesis of information*

Among the nutrition actions that global guidance documents recommend, we first identified those that were applicable in Sri Lanka.<sup>1</sup> We developed a spreadsheet on which to enter the information for each recommended and applicable nutrition action (policy name, year published, policy recommendations, program guideline name). We then reviewed Sri Lanka's policies and programs to determine whether the recommended and applicable nutrition actions were being directly or indirectly addressed by the policies. If a nutrition action was addressed in the policy, we reviewed the program implementation and operational guidelines in order to assess implementation status, recommendations, and geographic reach.

We examined whether policies and strategies recognized the immediate and underlying determinants of nutrition and what activities were aimed at addressing these determinants. We did not, however, assess the complete adequacy of the activities aimed at addressing these determinants.

Finally, we reviewed the policies and plans to examine which nutrition outcomes were targeted. In addition to examining which global nutrition outcomes were targeted in the national plans, we also assessed whether country-specific nutrition outcomes were present as key policy targets

Two researchers at IFPRI reviewed the national policy and program documents and their mapping to the framework of actions, determinants, and outcomes; the resulting spreadsheet was cross-checked by staff at UNICEF regional and country offices.

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## 2.2 *Methods: Data Availability*

For each of the nutrition actions and each of the indicators for determinants and outcomes, we assessed population-based surveys for the availability of data for progress tracking. We reviewed the questionnaires used in the following surveys:

- Sri Lanka Demographic and Health Survey (SDHS) 2016 (Sri Lanka, Department of Census and Statistics, and Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2017c)
- National Nutrition and Micronutrient Survey (NNMS) 2012 (Sri Lanka Ministry of Health and UNICEF, 2012)
- Non-Communicable Disease Risk Factor Survey Sri Lanka (NCDRFS) 2015 (STEPS, Ministry of Health, Nutrition and Indigenous Medicine and WHO, 2015)
- National Nutrition Survey of Lactating Women in Sri Lanka (NNSLW) 2017 (Medical Research institute, UNICEF and WFP, 2017a)
- National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka (NNMSPW) 2015 (Medical Research institute, UNICEF and WFP, 2017b)
- NNMS among school adolescents aged ten to 18 years in Sri Lanka 2019 (Medical Research Institute, 2019)

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<sup>1</sup> Some recommended nutrition actions are only applicable based on settings; for example, IFA supplementation for adolescents is only applicable if the anemia prevalence among women of reproductive age is more than 20 percent (see Appendix 1 for related details).

In administrative data systems, we assessed the data availability of 15 indicators pertaining to ten high-impact nutrition interventions identified in The Lancet framework (Black et al. 2013) and *Essential Nutrition Actions: Mainstreaming Nutrition Through the Life-Course* (WHO 2019). The data availability was qualitatively assessed through an in-country consultative process coordinated by UNICEF Country Office Nutrition Information System (NIS) focal points, who reviewed and assessed the data availability in Health Management Information System (HMIS).

## 3 Findings: Overview of Policies and Programs in Sri Lanka

In this section, we address, 1) the extent to which policies and programs address recommended nutrition actions across the life-course; 2) the key determinants of malnutrition that are targeted in Sri Lanka's policies; and 3) the key nutrition outcomes that are targeted in Sri Lanka's policies.

### 3.1 To What Extent Do Policies and Programs Address Recommended Nutrition Actions?

Global guidance documents recommend a total of 53 nutrition actions through the life-course; of these, 47 are applicable in Sri Lanka (Table 1).<sup>2</sup> Of these 47 actions, policies addressed 45 and programs addressed 44. Both policies and programs addressed one of two actions aimed at adolescence. Of the recommended nutrition actions aimed at preconception, policies addressed three of three, but programs addressed only two of three. Of the nutrition actions focused on pregnancy, policies and programs addressed 15 of 15. Policies and programs addressed 12 of 12 nutrition actions targeting delivery and postnatal care (PNC) and 15 of 16 actions focused on early childhood. Appendix 1 provides details on how policies and programs address recommended nutrition actions and Appendix 2 provides details on program implementation.

Sri Lanka's policies and programs did not address food supplementation during adolescence or food supplementation for complementary feeding during early childhood. Programs did not address daily or intermittent IFA supplementation during preconception (Table 1).

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<sup>2</sup> Actions that are not applicable include preventive deworming for adolescent girls, during preconception and pregnancy, vitamin A and MNP supplementation during pregnancy, and daily IFA supplementation for children six to 59 months.

**Table 1. Nutrition actions addressed and not addressed by policies and programs in Sri Lanka, by life-course**

Life-course	Nutrition actions	
	Addressed in national policies and programs	Not addressed in national policies and programs
<b>Adolescence</b>	<ul style="list-style-type: none"> <li>• Daily or intermittent iron and folic acid (IFA) supplementation</li> </ul>	<ul style="list-style-type: none"> <li>• Food supplementation</li> </ul>
<b>Preconception</b>	<ul style="list-style-type: none"> <li>• Contraception</li> <li>• Iodine supplementation</li> </ul>	<ul style="list-style-type: none"> <li>• Daily or intermittent IFA supplementation</li> </ul>
<b>Pregnancy</b>	<ul style="list-style-type: none"> <li>• Antenatal care (ANC) screening by a trained provider</li> <li>• ANC screening by a trained provider during first trimester</li> <li>• Four or more ANC visits</li> <li>• Energy and protein dietary supplementation with Thriposha</li> <li>• Daily or intermittent IFA supplementation</li> <li>• Calcium supplementation</li> <li>• Tetanus toxoid vaccination</li> <li>• Nutritional counseling on healthy diet</li> <li>• Weight monitoring</li> <li>• Advice about weight after weighing</li> <li>• Advice on consuming calcium</li> <li>• Advice on consuming IFA</li> <li>• Advice on consuming additional food</li> <li>• Advice on birth preparedness</li> <li>• Advice on exclusive breastfeeding</li> </ul>	-
<b>Delivery and postnatal period</b>	<ul style="list-style-type: none"> <li>• Institutional birth</li> <li>• Skilled birth attendant</li> <li>• Optimal timing (delayed) of umbilical cord clamping</li> <li>• Assessment of birth weight</li> <li>• Support for early breastfeeding and immediate skin-to-skin contact</li> <li>• Optimal feeding of low-birth-weight infants</li> <li>• Counseling of mothers of low-birth-weight infants on Kangaroo Mother Care (KMC)</li> <li>• Postnatal care (PNC) for babies around day three, day seven, and within six weeks after birth</li> <li>• PNC for women within three and seven days and within six weeks after delivery</li> <li>• Breastfeeding counseling</li> <li>• IFA supplementation</li> <li>• Food supplementation for malnourished lactating women (Thriposha)*</li> </ul>	-

Life-course	Nutrition actions	
	Addressed in national policies and programs	Not addressed in national policies and programs
<b>Early Childhood</b>	<ul style="list-style-type: none"> <li>• Breastfeeding counseling</li> <li>• Counseling on appropriate complementary feeding</li> <li>• Iron-containing micronutrient powder (MNP)</li> <li>• Zinc supplementation during diarrhea</li> <li>• Oral rehydration salts (ORS) during diarrhea</li> <li>• Vitamin A supplementation</li> <li>• Preventive deworming</li> <li>• Growth monitoring (weight and height/length assessment)</li> <li>• Counseling on nutritional status</li> <li>• Identification of severe or moderate underweight</li> <li>• Inpatient management of severe acute malnutrition (SAM)</li> <li>• Outpatient management of SAM</li> <li>• Management of moderate acute malnutrition (MAM) (Thriposha)**</li> <li>• Immunization</li> </ul>	<ul style="list-style-type: none"> <li>• Food supplementation for complementary feeding</li> </ul>

**Source:** Review of policies and programs (see Appendix 1 for details).

**Note:** \*= all (not only malnourished) lactating women receive food supplementation; \*\* = in addition to being used to treat MAM, Thriposha is provided to those who are at risk of MAM, that is, children with long-standing growth faltering and underweight.

### 3.2 Which Key Determinants of Malnutrition Are Targeted in Strategies?

According to our review, *Sri Lanka's Multi Sector Action Plan for Nutrition 2018–2025* (MSAPN) (Sri Lanka, National Nutrition Secretariat. n.d.) recognized and included activities for addressing immediate determinants; these include inadequate nutrient intake by children (breastfeeding and complementary feeding), and infectious diseases among children. The MSAPN also recognized and addressed underlying determinants, including sanitation and hygiene, food security, and social protection (Table 2). Appendix 3 provides details on the activities included in the strategies.

The *Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalence of Low Birth Weight in Sri Lanka: Health Sector Response* (Sri Lanka, Family Health Bureau 2013) and *National Strategic Plan on Adolescent and Youth Health (NSPAYH) (2018–2025)* (Sri Lanka, Family Health Bureau 2018) recognized and addressed women's status in terms of education and appropriate age of marriage and childbirth (an underlying determinant) (Table 2). Appendix 3 provides details on the activities included in the plan.

**Table 2. Immediate and underlying determinants recognized and addressed in national strategies**

Potential indicators	Recognized and addressed
<b>Immediate determinants</b>	
<b>1. Inadequate nutrient intake by children</b>	
<i>Breastfeeding</i>	
Early initiation of breastfeeding	✓
Exclusive breastfeeding	✓
Continued breastfeeding	✓
<i>Complementary feeding</i>	
Timely introduction of complementary feeding	✓
Minimum dietary diversity	✓
Minimum meal frequency	✓
Minimum acceptable diet	✓
<b>2. Infectious diseases</b>	
Diarrhea	✓
Acute respiratory infection (ARI)	✓
<b>3. Inadequate nutrient intake by mothers</b>	
<b>Underlying determinants</b>	
<b>1. Women's status</b>	
Completion of high school	✓
Early marriage	✓
Early childbirth	✓
<b>2. Sanitation and hygiene</b>	
Use of improved sanitation facilities	✓
Safe water, handwashing	✓
Safe disposal of faeces	✓
<b>3. Food security</b>	
<b>4. Socio-economic conditions</b>	
Covered by social protection schemes	✓

✓ =Addressed; ✗=Not addressed

**Source:** MSAPN 2018–2025 (Sri Lanka, National Nutrition Secretariat. n.d.), *The Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalence of Low Birth Weight in Sri Lanka: Health Sector Response* (Sri Lanka, Family Health Bureau 2013) and *National Strategic Plan on Adolescent and Youth Health (2018–2025)* (Sri Lanka, Family Health Bureau 2018)

### 3.3 Which Nutrition Outcomes Are Targeted by Sri Lanka's Strategies?

We reviewed the *MSAPN 2018–2025* (ibid) and *National Nutrition Policy (NNP) of Sri Lanka 2010* (Sri Lanka, Ministry of Healthcare and Nutrition 2010). Together, the MSAPN and the NNP aimed to address all five of the SDG maternal, infant, and young child nutrition outcome targets, that is, low birth weight, stunting, wasting, overweight among children under five years, and anemia among women of reproductive age (Table 3). Of the additional nutrition outcome indicators that are listed in the GNMF, the strategies we reviewed aimed to address underweight among non-pregnant women 15 to 19 years and overweight among women over 18 years.

Both the MSAPN and the NNP expressed an intent to track underweight among children zero to 59 months, anemia among pregnant women, short stature among adolescent girls 15 to 19 years, and anemia among children (Table 3). These indicators are country specific; they were available in the planning and policy documents we reviewed but are not available under the SDGs or the GNMF.

*National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (2016-2020)* (Sri Lanka, Ministry of Health 2016b) expressed an intent to track the progress of overweight, hypertension and diabetes among adults, which are part of the SDGs (Table 3). The NSPAYH (2018–2025) (Sri Lanka, Family Health Bureau 2018) tracked the progress of overweight among school-age children and adolescents five to 19 years (which is a part of the GNMF).

**Table 3. Nutrition outcomes on which Sri Lanka’s strategies are focused**

Nutrition outcomes	Sources	Included in country policy/plan
<b>Global nutrition goals/targets</b>		
Low birth weight (infants)	SDG	✓
Stunting (children zero to 59 months)	SDG	✓
Wasting (children zero to 59 months)	SDG	✓
Overweight (children zero to 59 months)	SDG	✓
Anemia (non-pregnant women 15 to 49 years)	SDG	✓
Underweight (non-pregnant women 15 to 49 years)	GNMF	✓
Overweight (school-age children and adolescents five to 19 years)	GNMF	✓
Overweight (women over 18 years)	SDG	✓
Overweight (men over 18 years)	SDG	✓
Hypertension (adults over 18 years)	SDG	✓
Diabetes (adults over 18 years)	SDG	✓
<b>Additional country-specific nutrition goals/targets</b>		
Underweight (children zero to 59 months)		✓
Anemia (pregnant women 15 to 49 years)		✓
Short stature (adolescent girls 15 to 19)		✓
Anemia (children six to 59 months)		✓

✓ =Addressed; ✗ =Not addressed

**Source:** MSAPN 2018–2025 (Sri Lanka, National Nutrition Secretariat. n.d.); NNP 2010 (Sri Lanka, Ministry of Healthcare and Nutrition 2010); *National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (2016-2020)* (Sri Lanka, Ministry of Health 2016b); NSPAYH 2018–2025 (Sri Lanka, Family Health Bureau 2018)

**Note:** SDG = Sustainable Development Goal; GNMF = Global Nutrition Monitoring Framework.

## 4 Findings: Data Availability for Tracking Progress on Nutrition in Sri Lanka

### 4.1 Availability of Data on Program and Policy Actions

Multiple data sources exist in Sri Lanka. The Sri Lanka Demographic and Health Survey (SDHS) 2016; National Nutrition and Micronutrient Survey (NNMS) 2012; National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka (NNMSPW) 2015; National Nutrition Survey of Lactating Women in Sri Lanka (NNSLW) 2017; and Non-Communicable Disease Risk Factor Survey Sri Lanka (NCDRFS) 2015 are the primary nationally representative population-based surveys.

Of 44 nutrition actions that were addressed by policies and programs in Sri Lanka, our review of population based surveys revealed that surveys provided data to assess coverage of only 22 actions, including one during adolescence, two for preconception, eight for pregnancy, six for delivery and the postnatal period, and five for early childhood (Table 4). We assessed HMIS for data availability regarding 15 nutrition actions; of these 15, data on only five could be found in any of the sources, one each aimed at women during pregnancy and during delivery, and three for early childhood.

Population-based surveys had no data on various types of counseling for pregnant women, including advice on healthy diet, counseling about weight after weighing, advice on consuming calcium, IFA, and additional food, and counseling on birth preparedness and exclusive breastfeeding (Table 4). Population-based surveys did not contain data on various actions during delivery and in the postnatal period, including optimal timing of umbilical cord clamping, support for early breastfeeding and immediate skin-to-skin contact, optimal feeding of low-birth-weight infants, counseling on Kangaroo Mother Care (KMC), breastfeeding counseling, and IFA supplementation. With regard to actions focused on childhood, data was not available on counseling on IYCF, micronutrient powder (MNP) supplementation, growth monitoring and counseling, or on all indicators related to identification and management of SAM and moderate acute malnutrition (MAM). The administrative data source had no data on IFA supplementation, nutrition counseling and advice on consuming IFA during pregnancy, IFA supplementation during lactation, MNP and zinc supplementation and on identification and management of SAM and MAM during early childhood.

**Table 4. Data availability on nutrition actions across the life-course**

Nutrition actions	Data availability					
	Population-based surveys					HMIS
	SDHS 2016	NNMS 2012	NNMS 2017	NNMSPW 2015	NNSLW 2017	
<b>Adolescence</b>						
Daily or intermittent iron and folic acid (IFA) supplementation	✗	-	✓	-	-	-
<b>Preconception</b>						
Contraception	✓	-	-	-	-	-
Iodine supplementation	✓	-	-	-	-	-
<b>Pregnancy</b>						
Antenatal care (ANC) screening by a trained provider	✓	-	-	✗	✗	-
ANC screening by a trained provider during the first trimester	✓	-	-	✓	✗	-
Four or more ANC visits	✓	-	-	✓	✗	-
Energy and protein dietary supplementation (Thriposha)	✓	-	-	✓	✗	-
Daily or intermittent IFA supplementation	✓	-	-	✓	✓	✗
Calcium supplementation	✓	-	-	✓	✓	-
Tetanus toxoid vaccination	✓	-	-	✗	✗	-
Nutritional counseling on healthy diet	✗	-	-	✗	✗	✗
Weight monitoring	✓	-	-	✓	✓	-
Advice about weight after weighing	✗	-	-	✗	✗	-
Advice on consuming calcium	✗	-	-	✗	✗	-
Advice on consuming IFA	✗	-	-	✗	✗	✗
Advice on consuming additional food	✗	-	-	✗	✗	-
Advice on birth preparedness	✗	-	-	✗	✗	-

Nutrition actions	Data availability					
	Population-based surveys					
	SDHS 2016	NNMS 2012	NNMS 2017	NNMSPW 2015	NNSLW 2017	HMIS
Advice on exclusive breastfeeding	✗	-	-	✗	✗	✓
<b>Delivery and postnatal period</b>						
Institutional birth	✓	✗	-	-	✓	-
Skilled birth attendant	✓	✗	-	-	✗	-
Optimal timing (delayed) of umbilical cord clamping	✗	✗	-	-	✗	-
Assessment of birth weight	✓	✓	-	-	✓	✓
Support for early breastfeeding and immediate skin-to-skin contact	✗	✗	-	-	✗	-
Optimal feeding of low-birth-weight infants	✗	✗	-	-	✗	-
Counseling of mothers of low-birth-weight infants on Kangaroo Mother Care (KMC)	✗	✗	-	-	✗	-
Postnatal care (PNC) for babies around day three, day seven, and within six weeks after birth	✓	✗	-	-	✗	-
PNC for women within three and seven days and within six weeks after delivery	✓	✗	-	-	✗	-
Breastfeeding counseling	✗	✗	-	-	✗	-
IFA supplementation	✗	✗	-	-	✗	✗
Food supplementation for malnourished lactating women	✗	✗	-	-	✓	-
<b>Children (zero to 59 months)</b>						
Breastfeeding counseling	✗	✗	-	-	✗	-
Counseling on appropriate complementary feeding	✗	✗	-	-	✗	-
Iron-containing micronutrient powder (MNP)	✗	✗	-	-	-	✗
Zinc supplementation during diarrhea	✓	✗	-	-	-	✗
Oral rehydration salts (ORS) during diarrhea	✓	✗	-	-	-	-
Vitamin A supplementation	✓	✓	-	-	-	✓

Nutrition actions	Data availability					
	Population-based surveys					
	SDHS 2016	NNMS 2012	NNMS 2017	NNMSPW 2015	NNSLW 2017	HMIS
Preventive deworming	✓	✓	-	-	-	✓
Growth monitoring (weight assessment)	✗	✗	-	-	-	✓
Counseling on nutritional status	✗	✗	-	-	-	-
Identification of severe or moderate underweight	✗	✗	-	-	-	✗
Inpatient management of severe acute malnutrition (SAM)	✗	✗	-	-	-	✗
Outpatient management of SAM	✗	✗	-	-	-	✗
Management of moderate acute malnutrition (MAM)	✗	✗	-	-	-	✗
Immunization	✓	✗	-	-	-	-

✓ =Available; ✗=Not available; - =Not applicable or not included in review

**Source:** Review of questionnaires used in SDHS 2016 (Sri Lanka, Department of Census and Statistics, and Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2017), NNMS 2012 (Sri Lanka Ministry of Health and UNICEF, 2012), NNMSPW 2015 (Medical Research institute, UNICEF and WFP, 2017b), NNSLW 2017 (Medical Research institute, UNICEF and WFP, 2017a), NNMS 2017 (Medical Research Institute, 2019) and a spreadsheet compiled by UNICEF Sri Lanka country office on data availability in HMIS (November 2020)

**Note:** SDHS = Sri Lanka Demographic and Health Survey; NNMS = National Nutrition and Micronutrient Survey. NNMSPW = National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka; NNSLW = National Nutrition Survey of Lactating Women in Sri Lanka

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## 4.2 Availability of Data on Key Determinants

Both SDHS 2016 and NNMS 2012 had data on indicators related to breastfeeding and complementary feeding (Table 5); SDHS 2016 had data on the prevalence of infectious diseases. SDHS 2016 contained data on indicators related to women's status (completion of secondary school, early marriage, and early childbirth); it also contained data on indicators related to hygiene (having a toilet, access to safe water, having a designated place for handwashing, and safe disposal of children's faeces). NNMS 2012 contained data on coverage by social protection schemes. NNMSPW 2015 contained data on dietary diversity among pregnant women and household food insecurity.

The only one indicator that was not included in either of the population-based surveys was questions on child stool disposal to enable the computation of the indicator on mothers of children under two years of age who use a toilet to dispose of child stools.

**Table 5. Potential indicators and data availability on immediate and underlying determinants**

Determinants	Potential indicators	Data availability		
		SDHS 2016	NNMS 2012	NNMSPW 2015
<b>Immediate determinants</b>				
<b>Nutrient intake by children</b>				
<i>Breastfeeding</i>				
	Percentage of infants zero to five months who were breastfed within one hour of birth	✓	✓	-
	Percentage of infants zero to five months who were fed only breast milk	✓	✓	-
	Percentage of children six to 23 months who had been breastfed in the 24 hours preceding the survey	✓	✓	-
<i>Complementary feeding</i>				
	Percentage of children six to eight months who had been introduced to solid, semi-solid, or soft foods	✓	✓	-
	Percentage of children six to 23 months who were consuming at least four out of the seven defined food groups	✓	✓	-
	Percentage of children six to 23 months who were breastfed and who also achieved the minimum dietary diversity and age-appropriate minimum meal frequency	✓	✓	-
	Percentage of children six to 23 months who received a minimum acceptable diet (apart from breast milk)	✓	✓	-
<b>Infectious diseases</b>				
	Percentage of children zero to 59 months who had had diarrhea in the last week	✓	✓	-
	Percentage of children zero to 59 months who had had acute respiratory infection (fever and chest drawing) in the last week	✓	✓	-
<b>Nutrient intake by mothers</b>				
	Percentage of currently pregnant women who were consuming foods from at least five out of the ten food groups	✗	-	✓
<b>Underlying determinants</b>				
<b>Women's status</b>				
	Percentage of women aged 15 to 49 years who had completed their high school (ten+ years of schooling)	✓	✗	✗
	Percentage of women aged 20 to 24 years who had been married before their eighteenth birthday	✓	✗	✗
	Percentage of women aged 20 to 24 years who had given birth to a child before their twentieth birthday	✓	✗	✗

Determinants	Potential indicators	Data availability		
		SDHS 2016	NNMS 2012	NNMSPW 2015
<b>Sanitation and hygiene</b>				
	Percentage of households with children under two years in which the house had a toilet	✓	✗	✓
	Percentage of children under two years who were living in households with safe water	✓	✗	✓
	Percentage of households with children under two years where the mother also used the toilet	✗	✗	✗
	Percentage of households with children under two years which had a designated place for handwashing with soap	✓	✗	✗
	Percentage of children under two years whose faeces were safely disposed of	✓	✗	-
<b>Food security</b>				
	Percentage of households moderately or severely food insecure	✗	✗	✓
<b>Socio-economic conditions</b>				
	Percentage of households covered under social protection schemes	✗	✓	✓

✓ = Available; ✗ = Not available; - = Not applicable or not included in review

**Source:** Review of questionnaires used in SDHS 2016 (Sri Lanka, Department of Census and Statistics, and Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2017), NNMS 2012 (Sri Lanka Ministry of Health and UNICEF, 2012), NNMSPW 2015 (Medical Research institute, UNICEF and WFP, 2017b)

**Note:** SDHS = Sri Lanka Demographic and Health Survey; NNMS = National Nutrition and Micronutrient Survey; NNMSPW = National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka

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### 4.3 Availability of Data on Nutrition Outcomes

Population-based surveys contained data on all of the nutrition outcomes targeted by Sri Lanka's policies and programs (Table 6). Data on low birth weight, childhood stunting, wasting, and overweight were available in the SDHS 2016 and NNMS 2012. SDHS 2016 also included data on anemia, underweight and overweight among non-pregnant women, NNMS 2012 contained data on overweight among adolescent. NCDRFS 2015 assessed the underweight, overweight, blood pressure and blood sugar among adults. NNMSPW 2015 contained data on anemia among pregnant women. NNMS 2012 included the short stature among adolescents. The 2016 Sri Lanka Global School-based Student Health Survey (GSHS) also measured the height and weight of the students 13-17 years old (Not shown in Table).

**Table 6. Data availability on nutrition outcomes**

Outcome indicators		Data availability			
		SDHS 2016	NNMS 2012	NNMSPW 2015	NCDRFS 2015
<b>SDG</b>	Low birth weight (percentage of infants born with birth weights under 2500 grams)	✓	✓	-	-
	Stunting (percentage of children zero to 59 months who were below -2 HAZ)	✓	✓	-	-
	Wasting (percentage of children zero to 59 months who were below -2 WHZ)	✓	✓	-	-
	Overweight (percentage of children zero to 59 months who were above 2 WAZ)	✓	✓	-	-
	Anemia (percentage of non-pregnant women 15 to 49 years who were anemic)	✓*	-	-	-
<b>GNMF</b>	Underweight (percentage of non-pregnant women 15 to 49 years who had a BMI of less than 18.5 kg/m <sup>2</sup> )	✓	-	-	✓
	Overweight (percentage of children and adolescents five to 19 years who had a BMI-Z greater than one)	✗	✓	-	-
	Overweight (percentage of women over 18 years who had a BMI greater than 25 kg/m <sup>2</sup> )	✓	✓	-	✓
<b>SDG</b>	Overweight (percentage of men over 18 years who had a BMI greater than 25 kg/m <sup>2</sup> )	✗	✓	-	✓
	Hypertensive (percentage of adults over 18 years who are had a systolic blood pressure above 140 mmHg and diastolic blood pressure above 90 mmHg)	✗	-	-	✓
	Diabetic (percentage of adults over 18 years who had a fasting blood sugar level above 7.0 mmol/l [126 mg/dl])	✗	-	-	✓
<b>Country specific</b>	Underweight (percentage of children zero to 59 months who were below -2 WAZ)	✓	✓	-	-
	Anemia (percentage of pregnant women who were anemic)	✗	-	✓	-
	Short stature (percentage of adolescent girls 15 to 19 years whose height was under 145 cm)	✗	✓	-	-
	Anemia (percentage of children six to 59 months who were anemic)	✓*	✓	-	-

✓=Available; ✗=Not available; - =Not applicable or not included in review

**Source:** Review of questionnaires used in SDHS 2016 (Sri Lanka, Department of Census and Statistics, and Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2017), NNMS 2012 (Sri Lanka Ministry of Health and UNICEF, 2012), NNMSPW 2015 (Medical Research institute, UNICEF and WFP, 2017b) and NCDRFS 2015 (STEPS, Ministry of Health, Nutrition and Indigenous Medicine and WHO)

**Note:** SDHS = Sri Lanka Demographic and Health Survey; NNMS = National Nutrition and Micronutrient Survey; NNMSPW = National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka; HAZ = height-for-age z-score; WHZ = weight-for-height z-score; WAZ = weight-for-age z-score; BMI = body mass index; BMI-Z = body mass index z-score; GNMF = Global Nutrition Monitoring Framework; SDG = Sustainable Development Goal.

\*SDHS 2016 had an anemia screening tools for women and children, but the SDHS 2016 report did not report prevalence nor was the data on anemia was available in the dataset.

## 5 Conclusions and Recommendations

### 5.1 Policy Gaps

Sri Lanka has a robust nutrition policy framework and various programs that are intended to deliver nutrition actions throughout the life-course. Findings show that policies and programs addressed 44 of the 47 recommended nutrition actions that are applicable for Sri Lanka. Gaps in addressing nutrition actions were more concentrated during preconception. Sri Lanka's nutrition policies and programs do not currently address food supplementation during adolescence and during early childhood, and programs do not currently address IFA supplementation during preconception. It is promising, however, that the country's multisectoral nutrition plan recognizes and addresses all key determinants of nutrition. The multisectoral nutrition plan and the NNP along with National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (2016-2020) also aim to tackle a range of globally accepted nutrition goals, including those related to NCDs. Country-specific goals related to child underweight and anemia, anemia in pregnant women, and adolescent short stature are also included in Sri Lanka's policies.

### 5.2 Data Gaps

The gaps in data availability to track progress on nutrition are much greater than are the gap in policies and programs that address the recommended nutrition actions.

- School platforms are used to distribute IFA to adolescent girls in Sri Lanka; the opportunity to acquire this data from the education sector should be explored.
- The data gap in nutrition actions during pregnancy is mostly around indicators related to counseling; the upcoming Demographic and Health Survey (DHS) using the DHS-8 questionnaire should fill this gap. Future rounds of population-based surveys should be designed to fill the data gaps around nutrition actions during delivery as well.
- Data gaps are prominent for interventions targeting children, including on new-born and PNC and on nutrition actions during early childhood; these need to be closed.

### 5.3 Recommendations

This report is intended to spark discussions among the nutrition policy community in Sri Lanka and where relevant, to support decisions about closing both policy and data gaps. Our primary recommendations are noted below.

- Assess whether the gaps identified in our nutrition policy review are relevant to close in the context of the current burden of malnutrition in Sri Lanka; if relevant consider updating national nutrition strategies to fully encompass all forms of malnutrition.
- Review opportunities for strengthening nutrition data collection—both via surveys and administrative data—to close gaps in data needed for tracking progress on existing policies and programs. Given the data gaps identified in our review, efforts to

improve the availability of data on child nutrition interventions are likely most important.

## 6 Appendices

### 6.1 Appendix 1: Nutrition Actions Addressed by Policies and Programs

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
<b>Adolescence</b>							
1	<b>Intermittent or daily iron and folic acid (IFA) supplementation</b> <i>(Intermittent if anemia prevalence is more than 20 percent and daily if anemia prevalence is greater than 40 percent among non-pregnant women)</i>	(WHO 2019)	✓ 32 percent (Source: Global Nutrition Report country profile)	✓	National Nutrition Policy of Sri Lanka (NNP) 2010; Multi Sector Action Plan for Nutrition (MSAPN) 2018–2025	✓ <b>Weekly Iron, Folic Acid, Vitamin C Supplementation Program</b>	3
2	<b>Preventive deworming</b> <i>(If prevalence of any soil-transmitted helminth infection is 20 percent or higher among adolescents 11 to 19 years)</i>	(WHO 2018)	✗	✗	NA	✗	NA
3	<b>Food supplementation</b> <i>(All countries, all settings)</i>	<i>e-Library of Evidence for Nutrition Actions (eLENA) (WHO, n.d.)</i>	✓	✗	NA	✗	NA

S.N	Nutrition actions	References	Nutrition action is applicable	Nutrition action is addressed by policy	Policy	Program	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
					Policy document name	Program availability and program name	
<b>Preconception</b>							
4	<b>Daily or intermittent IFA supplementation</b> <i>(Intermittent if anemia prevalence is more than 20 percent and daily if anemia prevalence is more than 40 percent among non-pregnant women)</i>	(WHO 2019)	✓	✓	NNP 2010	✗	NA
5	<b>Preventive deworming</b> <i>(If prevalence of any soil-transmitted helminth infection is 20 percent or higher among women of reproductive age 15 to 49 years)</i>	(WHO 2019)	✗	✓	MSAPN 2018–2025	✗	NA
6	<b>Contraception</b> <i>(All countries, all settings)</i>	Every Woman Every Child, 2016–2030 (EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a; National Strategic Plan Maternal and Newborn Health (NSPMNH) (2017-2025)	✓ <b>Maternal and Newborn Care Program</b>	3
7	<b>Iodine supplementation</b> <i>(If 20 percent or fewer households have access to iodized salt and pregnant women are difficult to reach)</i>	(WHO 2019)	✓	✓	Universal salt iodization under the <i>Food Act 1980</i>	✓ <b>Iodine Deficiency Disorders (IDD) Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
<b>Pregnancy</b>							
8	<b>Antenatal care (ANC) screening by a trained provider</b> <i>(All countries, all settings)</i>	(WHO 2004, 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
9	<b>ANC screening by a trained provider during the first trimester</b> <i>(All countries, all settings)</i>	(WHO 2004, 2016)	✓	✓	National Policy on Maternal and Child Health 2012a; NSPMNH 2017-2025	✓ <b>Maternal and Newborn Care Program</b>	3
10	<b>Four or more ANC visits</b> <i>(All countries, all settings)</i>	(WHO 2004, 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
11	<b>Energy and protein dietary supplementation</b> <i>(If underweight prevalence among women is more than 20 percent)</i>	(WHO 2019)	✓ <sup>1</sup> 9 percent (SDHS 2016)	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
12	<b>Daily or intermittent IFA supplementation</b> <i>(Daily in all countries, all settings; intermittent if anemia prevalence among pregnant women is less than 20 percent or daily iron is not acceptable due to side-effects)</i>	(WHO 2019)	✓	✓	NNP 2010; MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3

<sup>1</sup>Even though the action was not applicable, country's policy and program had addressed this action. Therefore, we considered the action applicable.

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
13	<b>Vitamin A supplementation</b> (Where five percent or more of women have a history of night blindness during pregnancies in the past three to five years, or if 20 percent or more of pregnant women have vitamin A deficiency)	(WHO 2019)	✗	✗	NA	✗	NA
14	<b>Calcium supplementation</b> (Where dietary calcium intake is low)	(WHO 2019)	✓	✓	NNP 2010; MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
15	<b>Iron-containing micronutrient powder (MNP) supplementation</b> (Settings with a high prevalence of nutritional deficiencies)	(WHO 2019)	✗	✗	NA	✗	NA
16	<b>Preventive deworming</b> (Where pregnant women have a 20 percent or higher prevalence of infection with hookworm or <i>T. trichiura</i> infection AND a 40 percent or higher prevalence of anemia)	(WHO 2019)	✗	✓	MSAPN 2018–2025	✗ <b>Maternal and Newborn Care Program</b>	3
17	<b>Tetanus toxoid vaccination</b> (All countries, all settings)	(WHO 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
18	<b>Nutritional counseling on healthy diet</b> <i>(If underweight prevalence among women is more than 20 percent)</i>	(WHO 2019)	✓	✓	NNP 2010; MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
19	<b>Weight monitoring</b> <i>(All countries, all settings)</i>	(WHO 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
20	<b>Advice about weight after weighing</b> <i>(All countries, all settings)</i>	(WHO 2016)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
21	<b>Advice on consuming calcium</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
22	<b>Advice on consuming IFA</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Nutrition action is addressed by policy	Policy	Program	
					Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
23	<b>Advice on consuming additional food</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
24	<b>Advice on birth preparedness</b> <i>(All countries, all settings)</i>	(WHO 2015)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
25	<b>Advice on exclusive breastfeeding</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010	✓ <b>Maternal and Newborn Care Program</b>	3
<b>Delivery and postnatal</b>							
26	<b>Institutional birth</b> <i>(All countries, all settings)</i>	(EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
27	<b>Skilled birth attendant</b> <i>(All countries, all settings)</i>	(EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
28	<b>Optimal timing (delayed) of umbilical cord clamping</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3
29	<b>Assessment of birth weight</b> <i>(All countries, all settings)</i>	(WHO 2013)	✓	✓	NNP 2010	✓ <b>Maternal and Newborn Care Program</b>	3
30	<b>Support for early breastfeeding and immediate skin-to-skin contact</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	National Policy on Maternal and Child Health 2012a; NSPMNH 2017-2025	✓ <b>Maternal and Newborn Care Program</b>	3
31	<b>Optimal feeding of low-birth-weight infants</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
32	<b>Counseling of mothers of low-birth-weight infants on Kangaroo Mother Care (KMC)</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Nutrition action is addressed by policy	Policy	Program	
					Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
33	<b>Postnatal care (PNC) for babies around day three, day seven, and within six weeks after birth</b> <i>(All countries, all settings)</i>	(EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a; NSPMNH 2017-2025	✓ <b>Maternal and Newborn Care Program</b>	3
34	<b>PNC for women within three and seven days and within six weeks after delivery</b> <i>(All countries, all settings)</i>	(EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a; NSPMNH 2017-2025	✓ <b>Maternal and Newborn Care Program</b>	3
35	<b>Breastfeeding counseling</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010	✓ <b>Maternal and Newborn Care Program</b>	3
36	<b>IFA supplementation</b> <i>(With a 20 percent or higher population prevalence of gestational anemia)</i>	(WHO 2019)	✓	✓	NNP 2010; MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
37	<b>Food supplementation for malnourished lactating women</b> <i>(All countries, all settings)</i>	(WHO 2018)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Maternal and Newborn Care Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
<b>Early childhood</b>							
38	<b>Breastfeeding counseling</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	National Strategy for Infant and Young Child Feeding (NSIYCF) 2015–2020	✓ <b>Maternal and Newborn Care Program</b>	3
39	<b>Counseling on appropriate complementary feeding</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010; NSIYCF 2015–2020; MSAPN 2018–2025	✓ <b>Maternal and Newborn Care Program</b>	3
40	<b>Food supplementation for complementary feeding</b> <i>(In food-insecure populations)</i>	Bhutta et al. 2013; eLENA (WHO, n.d.)	✓	✗	NA	✗	NA
41	<b>Iron-containing MNP</b> <i>(In which the prevalence of anemia in children under five years of age is 20 percent or more)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Multiple Micronutrient Supplementation for Infants and Young Children Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
42	<b>Daily IFA supplementation</b> <i>(Daily if anemia prevalence among children aged six to 59 months is 40 percent or more; intermittent for children aged 24 to 59 months if anemia prevalence among this group is 20 percent or more).</i>	(WHO 2019)	✗	✗	NA	✗	NA
43	<b>Zinc supplementation during diarrhea</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Child Health Program</b>	3
44	<b>Oral rehydration salts (ORS) during diarrhea</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	National Policy on Maternal and Child Health 2012a	✓ <b>Child Health Program</b>	3
45	<b>Vitamin A supplementation</b> <i>(Where the prevalence of night blindness is one percent or more in children aged 24 to 59 months, or the prevalence of vitamin A deficiency is 20 percent or higher in infants and children aged six to 59 months)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Child Health Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
46	<b>Preventive deworming</b> <i>(Living in areas where the baseline prevalence of any soil-transmitted infection is 20 percent or higher among children aged 12 months and older)</i>	(WHO 2019)	✓	✓	MSAPN 2018–2025	✓ <b>Child Health Program</b>	3
47	<b>Growth monitoring (weight assessment)</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010; and National Strategic Plan on Child Health in Sri Lanka (NSPCH) (2018-2025)	✓ <b>Child Health Program</b>	3
48	<b>Counseling on nutritional status</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010; and NSPCH 2018-2025	✓ <b>Child Health Program</b>	3
49	<b>Identification of severe or moderate underweight</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010	✓ <b>Nutrition Rehabilitation Program</b>	3
50	<b>Inpatient management of severe acute malnutrition (SAM)</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010	✓ <b>Nutrition Rehabilitation Program</b>	3

S.N	Nutrition actions	References	Nutrition action is applicable	Policy		Program	
				Nutrition action is addressed by policy	Policy document name	Program availability and program name	Geographic coverage (1 = Pilot; 2 = Scale up in select districts; 3 = Nationwide)
51	<b>Outpatient management of SAM</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NNP 2010; NSIYCF 2015–2020	✓ <b>Nutrition Rehabilitation Program</b>	3
52	<b>Management of moderate acute malnutrition (MAM)</b> <i>(All countries, all settings)</i>	(WHO 2019)	✓	✓	NSIYCF 2015–2020	✓ <b>Nutrition Rehabilitation Program</b>	3
53	<b>Immunization</b> <i>(All countries, all settings)</i>	(EWEC 2016)	✓	✓	National Policy on Maternal and Child Health 2012a; and NSPCH 2018-2025	✓ <b>Child Health Program</b>	3

## 6.2 Appendix 2: Program Implementation/Operational Guidelines for Nutrition Actions

S.N	Nutrition actions	Program Implementation/operational guidelines
<b>Adolescence</b>		
1	Daily or intermittent iron and folic acid (IFA) supplementation	<i>Circular on Micronutrient Supplementation for School Children From the Year 2019 Onwards</i> (General Circular No. 01–12/2019) (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019): Schools should provide all students six to ten years with 30 mg of elemental iron and 400 mg of folic acid and all students 11 to 19 years with 60 mg of elemental iron and 400 mg of folic acid. IFA should be given for 24 consecutive weeks of the year (six months). Since 2013, provision of weekly iron and folic acid (WIFA) supplementation has been scaled up to cover all school children from grades one to 13.
<b>Preconception</b>		
2	Contraception	The Family Health Bureau under the Ministry of Health is responsible for planning, promoting, coordinating, monitoring, and evaluating family health services. <i>Strengthening Postpartum Family Planning Services Provided by Curative Institutions</i> (General Circular Letter No: 01—45/2017) (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2017) provides details of postpartum family planning services.
3	Iodine supplementation	Iodine Deficiency Disorders (IDD) program aims to sustainably achieve optimal iodine status among all population groups.
<b>Pregnancy</b>		
4	Antenatal care (ANC) screening by a trained provider	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): ANC is provided through clinics and domiciliary care. The first ANC check-up for all pregnant women should be conducted by a medical officer (Medical Officer of Health/Assistant Medical Officer of Health/Medical Officer).
5	ANC screening by a trained provider during the first trimester	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): Following registration at the clinic or home, all pregnant women should receive the first ANC visit as early as possible, preferably at six to eight weeks of gestation.
6	More than four ANC visits	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant women should receive at least eight ANC clinic visits at following weeks of gestation: six to eight, 12 to 14, 18 to 20, 22 to 24, 26 to 28, 32 to 34, 36, 38, and 40 weeks.
7	Energy and protein dietary supplementation	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant women should receive Thriposha from 1 <sup>st</sup> ANC visit (6-8 weeks). Thriposha contains iron along with carbohydrates, protein, fat, vitamins, iodine and energy.
8	Daily or intermittent IFA supplementation	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant women should receive 5 mg of folic acid during the first ANC visit (at six to eight weeks) and IFA supplementation (60 mg of elementary iron and 400 mg of folic acid) from the second visit onwards for the following six months.

S.N	Nutrition actions	Program
		Implementation/operational guidelines
9	Calcium supplementation	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant women should receive calcium supplementation (daily calcium lactate tablets) from the second ANC visit (at 12 to 14 weeks) onwards, after first 12 weeks during pregnancy and six months after delivery.
10	Preventive deworming	<i>Guidelines on De-worming Children and Pregnant Women Against Soil Transmitted Helminths in Community Setting 2019–2022</i> (General Circular No. 01–58/2018) (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2018): Pregnant women should receive 400 mg of albendazole after the first trimester only if they are confirmed by faecal examination to have hookworm infestation.
11	Tetanus toxoid vaccination	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant should receive a tetanus toxoid injection during the second (at 12 to 14 weeks) and third (at 18 to 20 weeks) ANC clinic visits.
12	Nutritional counseling on healthy diet	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): The nutritional status of all pregnant women should be assessed, and a dietary assessment (24-hour dietary recall) should also be done. All pregnant women should receive nutrition counseling to: 1) modify their diet by increasing starch-based foods such as rice, manioc, or string hoppers at each meal; 2) consume one or two extra meals per day; 3) include at least one or two tablespoons of oil per meal per day; and 4) include in their daily diet fresh or dried fish, eggs, pulses, vegetables, and leafy greens.
13	Weight monitoring	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant women should have their weight monitored during all eight ANC visits.
14	Advice about weight after weighing	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): Mothers should be weighed at all ANC visits, and the weight gain should be plotted on the chart; deviations from the expected weight gain should be noted.
15	Advice on consuming calcium	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): Start iron folate supplementation with Vitamin C and calcium supplementation if mother does not have vomiting or loss of appetite. Advice not to take iron and calcium together (take iron at night and calcium in the morning before/after meal.)
16	Advice on consuming IFA	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): IFA, vitamin C, and calcium supplementation should be started if the mother is not experiencing vomiting or loss of appetite. Mothers should be advised not to take iron and calcium together, that iron should be taken at night, and calcium should be taken in the morning before or after a meal.
17	Advice on consuming additional food	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): IFA, vitamin C, and calcium supplementation should be started if the mother is not experiencing vomiting or loss of appetite. Mothers should be advised not to take iron and calcium together, that iron should be taken at night, and calcium should be taken in the morning before or after a meal.
18	Advice on birth preparedness	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): As part of nutrition counseling during pregnancy, all pregnant women should receive advise to consume one or two extra meals per day.
19	Advice on exclusive breastfeeding	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All pregnant should receive counseling on birth and emergency preparedness in their second ANC clinic visit (at 12 to 14 weeks) and in subsequent visits. (This guide also provides a detailed guideline on how to develop a birth and emergency plan.)

S.N	Nutrition actions	Program
		Implementation/operational guidelines
<b>Delivery and postnatal</b>		
20	Institutional birth	<i>National Guidelines for Newborn Care (Volume 1)</i> (Sri Lanka, Ministry of Health 2014): A skilled birth attendant (Medical Officer/Nursing Officer/Midwife) should be responsible for every mother and baby.
21	Skilled birth attendant	<i>National Guidelines for Newborn Care (Volume 1)</i> (Sri Lanka, Ministry of Health 2014): A skilled birth attendant (Medical Officer/Nursing Officer/Midwife) should be responsible for every mother and baby.
22	Optimal timing (delayed) of umbilical cord clamping	<i>National Guidelines for Newborn Care (Volume 1)</i> (Sri Lanka, Ministry of Health 2014): Umbilical cord should not be clamped until at least one minute after the birth (while holding the baby at, or below, placenta level), if the baby does not require resuscitation; if resuscitation is required, the cord should be clamped and cut immediately.
23	Assessment of birth weight	<i>National Guidelines for Newborn Care (Volume 1)</i> (Sri Lanka, Ministry of Health 2014): After stabilisation, all infants should be weighed on a scale with at least a 5-gram sensitivity (The preferred instrument is a digital scale measuring in kilograms to three decimal places).
24	Support for early breastfeeding and immediate skin-to-skin contact	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): Health workers should encourage skin-to-skin contact for all newborns in the first hour of life; mothers should also be encouraged to breastfeed all newborns exclusively and on demand, day and night.
25	Optimal feeding of low-birth-weight infants	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All small babies or twins should receive special support for breastfeeding.
26	Counseling of mothers of low-birth-weight infants on Kangaroo Mother Care (KMC)	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All low-birth-weight newborns should receive skin-to-skin contact (KMC) as long as the baby requires. This guide also recommends teaching the mother how to care for a small baby (pre-term or low birth weight) using, for example, KMC.
27	Postnatal care (PNC) for babies around day three, day seven, and within six weeks after birth	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All newborns should receive their first clinical examination about an hour after the birth to assess if the baby can stay with the mother or needs additional care or a referral to special care.
28	PNC for women within three and seven days and within six weeks after delivery	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): All postpartum women should receive the first postnatal visit within 24 hours of delivery, the second visit two to seven days after the birth, and the third between eight and 42 days of the birth.
29	Breastfeeding counseling	<i>Maternal Care Package: A Guide to Field Healthcare Workers</i> (Sri Lanka, Family Health Bureau 2011): A Public Health Midwife (PHM) should have a daily conversation with the new mother regarding her experience with breastfeeding in order to assess if she is on course to breastfeed effectively and to identify if she needs additional support.

S.N	Nutrition actions	Program
		Implementation/operational guidelines
30	IFA supplementation	<u>Maternal Care Package: A Guide to Field Healthcare Workers</u> (Sri Lanka, Family Health Bureau 2011): All women should receive IFA for six months following the birth of a child.
31	Food supplementation for malnourished lactating women	<u>Maternal Care Package: A Guide to Field Healthcare Workers</u> (Sri Lanka, Family Health Bureau 2011): All lactating women should receive Thriposha food supplement during the postpartum period.
<b>Early childhood</b>		
32	Breastfeeding counseling	<u>Guidelines on Infant and Young Child Feeding</u> (Sri Lanka, Ministry of Health 2007): According to this guideline: 1) frequent on-demand breastfeeding should be continued for the first year of the baby's life, while also giving appropriate complementary foods; 2) complementary food should be offered to children when they are hungry and breast milk should be given afterwards; 3) mothers who are employed should be encouraged to give expressed breast milk (EBM) to their babies and should be supported in doing so; 4) family foods should constitute the baby's main meals after the first year, but breastfeeding should be continued during and after the three main meals until the baby is at least two years old. It is important to note that during and after the second year of the baby's life, milk (breast milk or other) should not replace the main meals and should be given only after, or between, meals. This information should be communicated to the caregivers of infants and young children by healthcare personnel.
33	Counseling on appropriate complementary feeding	<u>Guidelines on Infant and Young Child Feeding</u> (Sri Lanka, Ministry of Health 2007): According to this guideline: 1) frequent on-demand breastfeeding should be continued for the first year of life while giving appropriate complementary foods; 2) complementary foods should be offered to children when they are hungry and breast milk should be given afterwards; and 3) family foods should be the baby's main meals after the first year. This guideline also provides details on the quantity of food, meal frequency, energy density, minimum number of meals to be given per day during the first two years, healthy variety of foods, iron-rich foods, the recommended minimum food intake per day, and the appropriate number of servings. This information should be communicated to the caregivers of infants and young children by healthcare personnel.
34	Micronutrient powder (MNP) supplementation	<u>Iron supplementation for infants and young children (General Circular No. 01- 68/ 2016)</u> (Sri Lanka, Ministry of Health 2016): All children six to 23 months should receive MNP sachets for two-month periods, beginning at six, 12 and 18 months of age. MNP sachets should be distributed during vaccination or in-field weighing posts.
35	Zinc supplementation during diarrhea	<u>Zn Supplementation in Managing Diarrhoea Among Children Under Five Years of Age</u> (General Circular No. 02–161/2013) ( Sri Lanka, Ministry of Health 2013): All Infants less than six months of age presenting with diarrhea at outpatient departments (OPDs), clinics, or wards should be treated daily for ten to 14 days with zinc (10 mg) one hour before or two hours after a meal, and the required supply should be issued to the child. Children six to 60 months with diarrhea should receive daily elemental zinc (20 mg) one hour before or two hours after a meal for ten to 14 days.
36	Oral rehydration salts (ORS) during diarrhea	Children with diarrhea at OPDs should receive ORS with zinc.
37	Vitamin A supplementation	<u>Vitamin A Megadose Supplementation – Revised Schedule (Circular No. 01-02/2009)</u> (Sri Lanka, Ministry of Health Care and Nutrition 2009): All children six to 59 months should receive a vitamin A capsule (100,000 IU) every six months through various delivery platforms (child welfare clinics or field weighing posts).

S.N	Nutrition actions	Program
		Implementation/operational guidelines
38	Preventive deworming	<u>Guidelines on De-worming Children and Pregnant Women Against Soil Transmitted Helminths in Community Setting 2019–2022</u> (General Circular No. 01–58/2018) (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2018): During the four-year period of 2019 to 2022, all children in high risk districts (of which there are two) and in intermediate risk (21 districts) should receive a single dose of mebendazole (500mg) at 18 months of age and at two, three, four, and five years; these should be distributed at child welfare clinics or field weighing posts.
39	Growth monitoring (weight assessment)	<u>Protocol for managing nutrition problems among under five children in the community.</u> (General circular letter no. 02–18/2008) (Sri Lanka, Ministry of Health 2008): All under-five children’s weight-for-age, weight-for-length, and height-for-age are measured at child welfare clinics, field weighing posts, and at well-baby clinics in curative establishments. Recommendations include: 1) assessment of weight-for-age every month up to two years, and once every three months from two to five years of age; 2) the recommended ages for measuring length-for-age are four, nine, 18, and 24 months, except in the case of a nutritional problem, for which measuring should be done every two months up to two years; 3) height-for-age is assessed every six months from two years to five years of age except in the case of a nutritional problem, for which measuring should be done every three months up to five years.
40	Counseling on nutritional status	<u>Protocol for managing nutrition problems among under five children in the community.</u> (General circular letter no. 02 – 18/2008) (Sri Lanka, Ministry of Health 2008): Following measurement, the child’s height and weight should be recorded in a Child Health and Development Record (CHDR). Parents and care givers are encouraged to read the CHDR.
41	Identification of severe or moderate underweight	<u>Management of Severe and Moderate Acute Undernutrition of the Children Under Five Years of Age: Manual for Health Workers in Sri Lanka</u> (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019): Children zero to 59 months are screened for severe acute malnutrition (SAM) or moderate acute malnutrition (MAM) in field weighing centers, during routine visits to field child welfare clinics, during visits to nutrition clinics by the Medical Officer of Health, in the course of active case-finding by a PHM during home visits, or when children are brought to the hospital for other services.
42	Inpatient management of SAM	<u>Management of Severe and Moderate Acute Undernutrition of the Children Under Five Years of Age: Manual for Health Workers in Sri Lanka</u> (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019): This guide provides details of inpatient treatment plans for infants under six months with SAM. Upon screening at a health facility, if the infant is confirmed to have SAM, he or she is admitted to the hospital for treatment. SAM children six to 59 months with complications are admitted to the hospital for inpatient treatment.
43	Outpatient management of SAM	<u>Management of Severe and Moderate Acute Undernutrition of the Children Under Five Years of Age: Manual for Health Workers in Sri Lanka</u> (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019): SAM children six to 59 months old who have a weight-for-height z-score of less than -3 Standard Deviation but no complications should be followed up in visits to a clinic or health post every week, or fortnightly; they should be provided with ready-to-use take-home rations and it should be ensured that they receive other services such as deworming, vitamin A supplementation, and immunization.
44	Management of MAM	<u>Management of Severe and Moderate Acute Undernutrition of the Children Under Five Years of Age: Manual for Health Workers in Sri Lanka</u> (Sri Lanka, Ministry of Health, Nutrition and Indigenous Medicine 2019): Under the supplementary feeding program, all children six to 59 months with MAM (weight-for-height between -3 SD and -2 SD without complications) should receive Ready to Use Therapeutic Food (RUTF) in the form of a dry take-home ration every month. Available supplement foods are Thriposha. Thriposha is also given to those children who are at risk of MAM, who have long-standing growth faltering.

S.N	Nutrition actions	Program
		Implementation/operational guidelines
45	Immunization	National Guidelines for Newborn Care (Volume 1) (Sri Lanka, Ministry of Health 2014): This guideline lists the routine vaccination schedule for children zero to 59 months.

## 6.3 Appendix 3: Activities Included in National Strategies to Address the Key Determinants of Nutrition

Key determinants of nutrition	Strategies that recognize	Activities included in national strategies
<b>1. Immediate determinants</b>		
a. Inadequate intake by children		
Breastfeeding	Multi Sector Action Plan for Nutrition (MSAPN) 2018–2025; National Strategy for Infant and Young Child Feeding (NSIYCF) 2015–2020	<p><i>The National Nutrition Policy (NNP)</i> (Sri Lanka, Ministry of Healthcare and Nutrition 2010) aims to ensure a good foundation for all infants and young children during their early childhood years through encouraging exclusive breastfeeding for the first six months of life, followed by continued breast feeding until at least two years together with complementary feeding.</p> <p><i>MSAPN 2018–2025</i> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to:</p> <ul style="list-style-type: none"> <li>• Promote and support exclusive breastfeeding until six months of age with special emphasis on working mothers</li> <li>• Enforce the <i>Sri Lanka Code for Promotion, Protection and Support of Breast Feeding and Marketing of Designated Products</i> (Sri Lanka, Ministry of Health. 2012b), which is an adaptation of the international code incorporating subsequent World Health Assembly (WHA) resolutions</li> <li>• Streamline and strengthen the implementation of maternity benefits for private (formal) sector employees</li> <li>• Scale up “baby-friendly workplace” initiative.</li> </ul>
Complementary feeding	MSAPN 2018–2025; NSIYCF 2015–2020	<p><i>NNP</i> (Sri Lanka, Ministry of Healthcare and Nutrition 2010) aims to strengthen complementary feeding practices.</p> <p><i>MSAPN 2018–2025</i> (Sri Lanka, National Nutrition Secretariat, n.d.):</p> <ul style="list-style-type: none"> <li>• Promote diverse home-cooked recipes and empowerment of mothers to improve complementary feeding practices.</li> <li>• Promote dietary diversity, with four or more food groups given twice daily to infants aged six to eight months and three times daily to infants aged nine to 23 months.</li> </ul>
Infectious diseases	MSAPN 2018–2025	<i>MSAPN 2018–2025</i> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to reduce the incidence of communicable diseases through improved Water, Sanitation and Hygiene (WASH) practices.

b. Inadequate intake by mothers	<i>Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalance of Low Birth Weight in Sri Lanka: Health Sector Response (Sri Lanka, Family Health Bureau 2013)</i>	<u><i>Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalance of Low Birth Weight in Sri Lanka: Health Sector Response</i></u> (Sri Lanka, Family Health Bureau 2013) aims to ensure the correct food habits, personal hygiene and sanitation.
<b>2. Underlying determinants</b>		
a. Women's status		
Education	<i>National Strategic Plan on Adolescent and Youth Health (NSPAYH) 2018–2025</i>	<u><i>NSPAYH 2018–2025</i></u> (Sri Lanka, Family Health Bureau 2018) aims to ensure provision of school education up to grade 13 for all adolescents.
Right age of marriage/childbirth	<i>Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalance of Low Birth Weight in Sri Lanka: Health Sector Response (Sri Lanka, Family Health Bureau 2013)</i>	<u><i>Strategies to Promote Optimal Fetal Growth and to Minimize the Prevalance of Low Birth Weight in Sri Lanka: Health Sector Response</i></u> (Sri Lanka, Family Health Bureau 2013) aims to establish SRH education / services and prevent adolescent pregnancies as per adolescent health strategy.

b. Sanitation and hygiene	MSAPN 2018-2025	<p><u>MSAPN 2018–2025</u> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to enforce WASH-related policies and strategies; it aims, further, to:</p> <ul style="list-style-type: none"> <li>• Ensure safe drinking water and improved sanitation facilities in schools, preschools, daycare centers, Child Development Centers, and workplaces</li> <li>• Conduct awareness programs for adolescents and for pregnant and pre-pregnant women to improve handwashing, sanitation, and personal hygiene</li> <li>• Ensure household-level sanitation (solid waste management)</li> <li>• Improve personal hygiene (correct handwashing techniques)</li> <li>• Ensure safe drinking water and improved sanitation facilities to nutritionally at-risk households</li> <li>• Provide sanitary latrines to each household</li> </ul>
c. Food security	MSAPN 2018–2025	<p><u>MSAPN 2018–2025</u> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to:</p> <ul style="list-style-type: none"> <li>• Promote nutrition-sensitive agriculture to improve food security and nutritional outcomes</li> <li>• Provide technical assistance to increase productivity in commercial agriculture</li> <li>• Provide technical and financial assistance to increase sustainability in home gardening</li> </ul>
d. Socio-economic conditions	MSAPN 2018–2025	<p>At the subnational level (provincial/district/division/village ward), <u>MSAPN 2018–2025</u> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to empower households to improve income so as to be self-sustaining. <u>MSAPN 2018–2025</u> (Sri Lanka, National Nutrition Secretariat, n.d.) aims to link nutritionally at-risk households to social protection programmes (<i>Samurdhi</i> programme).</p>

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