Are Data Available for Tracking Progress on Nutrition Policies, Programs, and Outcomes in Maldives?

Data DENT
Data for Decisions to Expand Nutrition Transformation

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Abbreviations

ANC	Antenatal Care
ARI	Acute Respiratory Infection
BCC	Behavior Change Communication
BFHI	Baby-Friendly Hospital Initiative
BMI	Body Mass Index
eLENA	e-Library of Evidence For Nutrition Actions
EWEC	Every Woman Every Child
GNMF	Global Nutrition Monitoring Framework
HAZ	Height-for-Age Z-Score
HMP	Health Master Plan
IEC	Information, Education, And Communication
IFA	Iron and Folic Acid
IFPRI	International Food Policy Research Institute
INNSP	Integrated National Nutrition Strategic Plan
IYCF	nfant and oung hild eeding
KMC	Kangaroo Mother Care
MAM	moderate acute malnutrition
MDHS	Maldives Demographic and Health Survey
MNP	Micronutrient Powder
NCD	Noncommunicable Disease
NCHS–ENAP	National Child Health Strategy—Every Newborn Action Plan
NMNS	National Micronutrient Survey
NRHS	National Reproductive Health Strategy
ORS	Oral Rehydration Salts
RMCH	Reproductive, Maternal, And Child Health
ROSA	Regional Office for South Asia
SAM	severe acute malnutrition
SDG	Sustainable Development Goal
SRFNCD	WHO STEPS Survey on Risk Factors for Noncommunicable Diseases
UNICEF	United Nation Children's Fund
WASH	Water, Sanitation and Hygiene
WAZ	Weight-for-Age Z-Score
WHO	World Health Organization

WHZ	weight-for-height z-score

Executive Summary

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

Our policy review identified a total of 53 recommended evidence-based nutrition actions; of these, 49 nutrition actions were applicable in Maldives and 31 were addressed in the country's nutrition policies and programs. The Maldives nutrition plan (the Integrated National Nutrition Strategic Plan, or INNSP) recognized and addressed all key determinants of nutrition except women's status (appropriate age of marriage/childbirth) and infectious diseases; the country's nutrition plan aimed to track progress on all nutrition outcome indicators.

Our data review found that of 31 actions addressed by policies and programs, population-based surveys contained data on only 22 actions. Neither of the population-based surveys contained data on a range of actions, including advice on consuming iron and folic acid (IFA) during pregnancy, support for early initiation of 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) during delivery and postpartum period, counseling on infant and young child feeding (IYCF), growth monitoring, and counseling after growth monitoring during early childhood. The population-based surveys contained data on most of the indicators for immediate and underlying determinants; indicators that were not available included maternal dietary diversity during pregnancy, household food insecurity, and coverage under social protection schemes. With the exception of anemia among non-pregnant women, data on all nutrition outcomes was available in population-based surveys.

In conclusion, Maldives should consider updating its national policies and programs to address existing gaps in recommended nutrition actions; in addition, future population-based surveys may also need to be revised to fill identified data gaps around nutrition actions and determinants.

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 and functioning health, education, and social protection systems, then 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 both 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, the 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 then assessed the availability of national data to track progress on nutrition. We have compiled an overview 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 Maldives.

It has two major objectives:

1) To assess the extent to which Maldives' 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 relevant nutrition outcomes, and

2) To examine the availability of data to track progress on nutrition actions, determinants, and outcomes in Maldives.

Review findings are intended to provide an evidence base that will further support national governments and their partners in identifying gaps in nutrition actions and improving data availability to better track progress on nutrition actions, determinants, and outcomes.

2 Approach

The approach and methods used for the policy review and for the data-availability review are described below. The review focuses primarily on the critical period from preconception to early childhood, but, where relevant, we also include information pertaining to noncommunicable disease (NCD) outcomes that have been 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 guides; and third, to synthesize information on nutrition actions, determinants, and outcomes against the base framework.

2.1.1 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, postnatally, and in early childhood. We identified a long list of recommended evidence-based nutrition actions from the following 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* (Every Woman Every Child [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 (SDGs) and from additional targets that were included in the WHO's Global Nutrition Monitoring Framework (GNMF) (WHO 2017). To ensure country specificity, we also included additional nutrition outcomes that are stated in the country strategies; some of these were not included in either the SDG or GNMF list of targets.

2.1.2 *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 Maldives included five nutrition-relevant national policies/plans/strategies and two program documents, as well as program implementation guidelines currently in use (Box 2).

Box 2. List of documents reviewed

Policy/plan/strategy

- *Multi-Sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases in Maldives (2014-2020)* (Ministry of Health and WHO Country Office, 2014)
- *Integrated National Nutrition Strategic Plan 2013–2017* (Maldives, Ministry of Health 2016a)
- *Health Master Plan (Maldives, Ministry of Health 2014)*
- *National Reproductive Health Strategy 2014–2018* (Maldives, Ministry of Health, n.d.)
- *National Child Health Strategy—Every Newborn Action Plan 2016–2020* (Maldives, Ministry of Health 2016b)

Program document/program implementation guideline

- *Social and Behavior Change Communication Strategy: The First 1000 Days Matter (2019–2021)* (UNICEF and Maldives, Ministry of Health 2019)
- *Immunization Handbook for Health Care Professionals* (National Program on Immunization 2015)

2.1.3 *Synthesis of information*

Among the nutrition actions that global guidance documents recommend, we first identified those that were applicable in Maldives.[1] 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 Maldives' 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 by a policy, we reviewed program implementation and operational guidelines in order to assess implementation status, recommendations, and geographic reach.

We assessed 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 overall adequacy of the activities aimed at addressing these determinants.

Finally, we reviewed the policies and plans to assess which nutrition outcomes were targeted. In addition to examining which global nutrition targets were focused on in the national plans, we also assessed the presence of country-specific nutrition outcomes among key policy targets.

2.2 Methods: Data Availability

For each of the nutrition actions and each of the indicators for determinants and outcomes, we identified the availability of data for progress tracking from population-based household surveys. We reviewed the questionnaires used in the Maldives Demographic and Health Survey (MDHS) 2016–17 (Maldives, Ministry of Health and ICF 2018), the National Micronutrient Survey 2010 (NMNS) (Aga Khan University, Maldives, Ministry of Health, UNICEF 2007) and the WHO STEPS Survey on Risk Factors for Noncommunicable Diseases (SRFNCD) (WHO Country Office for the Republic of Maldives and Health Protection Agency 2001). Because the UNICEF country office was not able to participate in the data collection, we were not able to include data availability in administrative data system in Maldives.

[1] 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. Appendix 1 provides related details.

3 Findings: Overview of Policies and Programs in Maldives

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 Maldives' policies; and 3) the key nutrition outcomes that are targeted in Maldives' 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, 49 are applicable in Maldives (Table 1).[2] Policies addressed 34 of these nutrition actions and programs addressed 31. Policies addressed one of three nutrition actions aimed during adolescence and programs did not address any. In terms of nutrition actions targeting women during preconception, policies addressed two of three actions, but programs addressed only one of three. Policies and programs addressed 12 of the 15 actions that were focused during pregnancy. Policies addressed 11 of the 12 actions for women during delivery and postnatal care, while programs addressed nine of the 12. Policies and programs addressed nine of the 16 actions focused during early childhood. Appendix 1 provides details on how policies and programs address recommended nutrition actions; Appendix 2 provides details on program implementation.

A number of nutrition actions were not addressed by either policies or programs. These actions include: daily or intermittent iron and folic acid (IFA) supplementation, deworming, and food supplementation during adolescence; daily or intermittent IFA and deworming during preconception; calcium supplementation, advice on consuming calcium supplementation and on preventive deworming during pregnancy; optimal timing (delayed) of umbilical cord clamping; IFA and food supplementation for malnourished lactating women and food supplementation for complementary feeding; and, during early childhood, iron-containing micronutrient powder (MNP), daily IFA supplementation, identification of severe or moderate underweight, inpatient management of severe acute malnutrition (SAM), outpatient management of SAM, and management of moderate acute malnutrition (MAM).

[2] Nutrition actions that are not applicable include several that are focused on pregnant women: energy and protein dietary supplementation, and iodine, vitamin A, and micronutrient powder supplementation.

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

Life-course	Nutrition actions	
	Addressed in national policies and programs	Not addressed in national policies and/or programs
Adolescence		• Daily or intermittent iron and folic acid (IFA) supplementation • Preventive deworming • Food supplementation
Preconception	• Contraception	• Daily or intermittent IFA supplementation • Preventive deworming
Pregnancy	• Antenatal care (ANC) screening by a trained provider • ANC screening by a trained provider during first trimester • Four or more ANC visits • Daily or intermittent IFA supplementation • Tetanus toxoid vaccination • Nutritional counseling on healthy diet • Weight monitoring • Advice about weight after weighing • Advice on consuming IFA • Advice on consuming additional food • Advice on birth preparedness • Advice on exclusive breastfeeding	• Calcium supplementation • Preventive deworming • Advice on consuming calcium
Delivery and postnatal period	• Institutional birth • Skilled birth attendant • 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 for babies around day three and day seven, and within six weeks after birth • Postnatal care for women within three and seven days of delivery, and within six weeks after delivery • Breastfeeding counseling	• Optimal timing (delayed) of umbilical cord clamping • IFA supplementation • Food supplementation for malnourished lactating women

Life-course	Nutrition actions	
	Addressed in national policies and programs	Not addressed in national policies and/or programs
Early Childhood	• Breastfeeding counseling • Counseling on appropriate complementary feeding • Zinc supplementation during diarrhea • Oral rehydration salts (ORS) during diarrhea • Vitamin A supplementation • Preventive deworming • Growth monitoring (weight assessment) • Counseling on nutritional status • Immunization	• Food supplementation for complementary feeding • Iron-containing micronutrient powder (MNP) • Daily IFA supplementation • Identification of severe or moderate underweight • Inpatient management of severe acute malnutrition (SAM) • Outpatient management of SAM • Management of moderate acute malnutrition (MAM)

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

3.2 Which Key Determinants of Malnutrition Are Targeted in Strategies?

The country's nutrition plan—the *Integrated National Nutrition Strategic Plan 2013–2017 (INNSP)*—recognized immediate determinants and included activities to address them; immediate determinants include inadequate nutrient intake by children (breastfeeding and complementary feeding) and inadequate nutrient intake by mothers. The INNSP also recognized and addressed underlying determinants, including women's education, sanitation and hygiene, food security, and coverage under social protection schemes (Table 2). Appendix 3 provides details on activities included in the strategies.

The INNSP 2013–2017 neither recognized nor addressed infectious diseases among children as being an immediate determinant of undernutrition, nor did it recognize or address women's status—which is to say the appropriate age of marriage and childbirth—as an underlying determinant (Table 2).

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

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

✓=Addressed; ✗=Not addressed

Source: Integrated National Nutrition Strategic Plan 2013–2017 (Maldives, Ministry of Health 2016)

3.3 Which Nutrition Outcomes Are Targeted by Maldives' Strategies?

The INNSP 2013–2017 was designed to track the progress of only three out of the five maternal, infant, and young child nutrition outcome targets in the SDGs, that is, stunting, wasting, and overweight among children under five (Table 3); furthermore, of the additional nutritional outcome indicators listed in the GNMF, the strategies that we reviewed aimed to address underweight among non-pregnant women 15 to 19 years, and overweight among women over 18 years. Anemia among pregnant women was the only country-specific nutrition target that was included in Maldives' national policies.

The *Multi-Sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases in Maldives (2014-2020)* had set targets to reduce mortality from diabetes, halt in rise of overweight and obesity and reduction in prevalence of hypertension (Table 3).

Table 3. Nutrition outcomes on which Maldives' strategies are focused

Nutrition outcomes	Sources	Included in country policy/plan
Global nutrition goals/targets		
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	✓
Additional country-specific nutrition goals/targets		
Anemia (percent of pregnant women who are anemic)		✓

✓=Addressed; ✗=Not addressed

Source: Integrated National Nutrition Strategic Plan 2013–2017 (Maldives, Ministry of Health 2016) and Multi-Sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases in Maldives (2014-2020) (Ministry of Health and WHO Country Office, 2014)

Note: SDG = Sustainable Development Goal; GNMF = Global Nutritional Monitoring Framework

4 Findings: Data Availability for Tracking Progress on Nutrition in Maldives

4.1 Availability of Data on Program and Policy Actions

Multiple data sources exist in Maldives; the primary nationally representative population-based surveys include the Maldives Demographic and Health Survey (MDHS) 2016–17; the National Micronutrient Survey (NMNS) 2010; and WHO STEPS Survey on Risk Factors for Noncommunicable Diseases (SRFNCD) 2011.

Of 31 nutrition actions that policies and programs addressed in Maldives, our review of population-based surveys revealed that the surveys provided data to access coverage of 22 actions; this included data on one action targeting women during preconception, ten actions aimed at women during pregnancy, six actions focused on women during delivery and in the postnatal period, and five actions focused on early childhood (Table 4).

Neither of the population-based surveys contained data on a number of nutrition actions, including: advising about weight after weighing and advising on the consumption of IFA during pregnancy; support for early breastfeeding and immediate skin-to-skin contact, advising on optimal feeding of low-birth-weight infants and counseling on Kangaroo Mother Care (KMC) during delivery and the postnatal period; counseling on infant and young child feeding (IYCF), growth monitoring and counseling after growth monitoring during early childhood (Table 4).

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

Nutrition actions	Data availability Population-based surveys	
	MDHS 2016–17	NMNS 2010
Preconception		
Contraception	✓	✗
Pregnancy		
Antenatal care (ANC) screening by a trained provider	✓	✗
ANC screening by a trained providers during the first trimester	✓	✓
Four or more ANC visits	✓	✓
Daily or intermittent iron and folic acid (IFA) supplementation	✓	✓
Tetanus toxoid vaccination	✓	✗
Nutritional counseling on healthy diet	✗	✓
Weight monitoring	✗	✓
Advice about weight after weighing	✗	✗
Advice on consuming IFA	✗	✗
Advice on consuming additional food	✗	✓
Advice on birth preparedness	✓	✗
Advice on exclusive breastfeeding	✗	✓
Delivery and postnatal period		
Institutional birth	✓	✗
Skilled birth attendant	✓	✗
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 for babies around day three, day seven, and within six weeks after birth	✓	✗
Postnatal care for women within three and seven days and within six weeks after delivery	✓	✗
Breastfeeding counseling	✓	✗
Children (zero to 59 months)		
Breastfeeding counseling	✗	✗
Counseling on appropriate complementary feeding	✗	✗
Zinc supplementation during diarrhea	✓	✗

Nutrition actions	Data availability Population-based surveys	
	MDHS 2016–17	NMNS 2010
Oral rehydration salts (ORS) during diarrhea	✓	✗
Vitamin A supplementation	✓	✓
Preventive deworming	✓	✓
Growth monitoring (weight assessment)	✗	✗
Counseling on nutritional status	✗	✗
Immunization	✓	✗

✓=Available; ✗=Not available

Source: Review of questionnaires used in MDHS 2016-17 (Maldives, Ministry of Health and ICF 2018), and NMNS 2007 (Aga Khan University, Maldives, Ministry of Health, UNICEF 2007)

Note: MDHS = Maldives Demographic and Health Survey; NMNS = National Micronutrient Survey

4.2 Availability of Data on Key Determinants

Both MDHS 2016–17 and NMNS 2007 had data on indicators related to breastfeeding; MDHS 2016–17 also had data on all indicators related to complementary feeding, while NMNS 2007 had data only on the introduction of solid and semi-solid food. Data on the prevalence of infectious diseases was available in both MDHS 2016–17 and NMNS 2007.

MDHS 2016–17 contained data on indicators related to women's status, including completion of secondary school, early marriage, and early childbirth; data on indicators related to hygiene (having a toilet, having access to safe water and a designated place for handwashing, and safe disposal of child's faeces) was available in MDHS 2016–17 as well. Data on indicators related to sanitation and hygiene was also available in NMNS 2007.

Three indicators for which data were not included in either MDHS 2016–17 or NMNS 2007 were dietary diversity of pregnant women, food insecurity, and coverage by social protection schemes.

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

Determinants	Potential indicators	Data availability	
		MDHS 2016–17	NMNS 2010
Immediate determinants			
Nutrient intake by children			
Breastfeeding			
	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	✓	✓
Complementary feeding			
	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)	✓	✗
Infectious diseases			
	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	✓	✓
Nutrient intake by mothers			
	Percentage of currently pregnant women who were consuming foods from at least five out of the ten food groups	✗	✗
Underlying determinants			
Women's status			
	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	
		MDHS 2016–17	NMNS 2010
Sanitation and hygiene			
	Percentage of households with children under two years in which the house had a toilets	✓	✓
	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	✓	✗
Food security			
	Percentage of households moderately or severely food insecure	✗	✗
Socio-economic conditions			
	Percentage of households covered under social protection schemes	✗	✗

✓=Available; ✗=Not available

Source: Review of questionnaires used in MDHS 2016-17 (Maldives, Ministry of Health and ICF 2018), NMNS 2007 (Aga Khan University, Maldives, Ministry of Health, UNICEF 2007)

Note: MDMS = Maldives Demographic and Health Survey; NMNS = National Micronutrient Survey

4.3 Availability of Data on Nutrition Outcomes

Data on a majority of the nutrition outcomes that were targeted by Maldives' policies were available in either MDHS 2016–17 or NMNS 2007 (Table 6); Data on NCD-related outcomes were available in SRFNCD 2011. Data on low birth weight was available in the MDHS 2016–17, but data on anemia among pregnant women was not available in either of the data sources.

Table 6. Data availability on nutrition outcomes

	Outcome indicators	Data availability		
		MDHS 2016–17	NMNS 2010	SRFNCD 2011
SDG	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)	✗	✓	-
GNMF	Underweight (percentage of non-pregnant women 15 to 49 years who had a BMI of less than 18.5 kg/m^2)	✓	✓	✓
	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^2)	✓	✓	✓
SDG	Overweight (percentage of men over 18 years who had a BMI greater than 25 kg/m^2)	✗	✗	✓
	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])	✗	✗	✓
Country specific	Anemia (Percentage of pregnant women who were anemic)	✗	✗	-

✓=Available; ✗=Not available; - =Not applicable

Source: Review of questionnaires used in MDHS 2016-17 (Maldives, Ministry of Health and ICF 2018), NMNS 2007 (Aga Khan University, Maldives, Ministry of Health, UNICEF 2007) and SRFNCD (WHO Country Office for the Republic of Maldives and Health Protection Agency 2001)

Note: MDMS = Maldives Demographic and Health Survey; NMNS = National Micronutrient Survey; SRFNCD = WHO STEPS Survey on Risk Factors for Noncommunicable Diseases SDG = Sustainable Development Goal; GNMF = Global Nutrition Monitoring Framework; HAZ = height-for-age z-score; WHZ = weight-for-height z-score; WAZ = weight-for-age z-score; BMI = body mass index

5 Conclusions and Recommendations

5.1 Policy Gaps

Policies and programs in Maldives address 31 of the 49 recommended nutrition actions that are applicable for Maldives. Gaps in addressing nutrition actions are more concentrated during early childhood. Policies and programs do not currently address food supplementation for complementary feeding, iron containing MNP, daily IFA supplementation, or identification and management of SAM and MAM during early childhood. Programs do not address daily IFA supplementation for adolescents and neither policies nor programs address deworming and food supplementation for adolescents. Policies and programs related to preconception do not address daily IFA supplementation and deworming. Policies and program related to pregnancy do not address calcium supplementation, advice on consuming calcium and preventive deworming. Policies and programs related to delivery and the postpartum period do not address delayed cord clamping, IFA supplementation, or food supplementation for malnourished lactating women. Except for infectious diseases and women's status (appropriate age of marriage and childbirth), national plan recognizes and addresses all key determinants of nutrition; and aims to tackle a range of globally accepted nutrition goals. Country-specific goals related to anemia among pregnant women were also included in Maldives' nutrition plan.

5.2 Data Gaps

- Data gaps in nutrition actions during pregnancy are mostly around indicators related to counseling; the upcoming Demographic and Health Survey (DHS) using the DHS-8 questionnaire should fill this gap at least to some extent. Future rounds of population-based surveys, however, should be designed to fill the data gaps related to nutrition actions during delivery as well.
- Data gaps are prominent for interventions targeting children, including on newborn and postnatal care 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 Maldives 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 the context of the current burden of malnutrition in Maldives; 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)
	Adolescence						
1	**Intermittent or daily iron and folic acid (IFA) supplementation** *(Intermittent if anemia prevalence is more than 20 percent and daily if anemia prevalence is greater than 40 percent among non-pregnant women)*	(WHO 2019)	✓ 63 percent; Maldives Demographic and Health Survey (MDHS 2016–17)	✓	Integrated National Nutrition Strategic Plan (INNSP) 2013–2017; Health Master Plan (HMP) 2016–2025	✗	NA
2	**Preventive deworming** *(If prevalence of any soil-transmitted helminth infection is 20 percent or higher among adolescents 11 to 19 years)*	(WHO 2018)	✓	✗	NA	✗	NA
3	**Food supplementation** *(All countries, all settings)*	e-Library of Evidence for Nutrition Actions (eLENA) (WHO n.d.)	✓	✗	NA	✗	NA
	Preconception						
4	**Daily or intermittent IFA supplementation** *(Intermittent if anemia prevalence is more than 20 percent and daily if anemia prevalence is greater than 40 percent among non-pregnant women)*	(WHO 2019)	✓ 63 percent (MDHS 2016–17)	✓	INNSP 2013–2017; HMP 2016–2025	✗	NA

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)
5	**Preventive deworming** *(If prevalence of any soil-transmitted helminth infection is 20 percent or higher among women of reproductive age, that is, 15 to 49 years)*	(WHO 2019)	✓	✗	NA	✗	NA
6	**Contraception** *(All countries, all settings)*	Every Woman Every Child, 2016–2030 (EWEC 2016)	✓	✓	National Child Health Strategy—Every Newborn Action Plan (NCHS–ENAP) 2016–2020	✓ **Reproductive, Maternal, and Child Health (RMCH) Services**	3
7	**Iodine supplementation** *(If 20 percent or fewer households have access to iodized salt and pregnant women are difficult to reach)*	(WHO 2019)	✗ 97 percent; National Micronutrient Survey 2010 (NMNS 2007)	✗	NA	✗	NA
	Pregnancy						
8	**Antenatal care (ANC) screening by a trained provider** *(All countries, all settings)*	(WHO 2004, 2016)	✓	✓	National Reproductive Health Strategy (NRHS) 2014–2018	✓ **RMCH Services**	3
9	**ANC screening by a trained provider during the first trimester** *(All countries, all settings)*	(WHO 2004, 2016)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
10	**Four or more ANC visits** *(All countries, all settings)*	(WHO 2004, 2016)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	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)
11	**Energy and protein dietary supplementation** *(If underweight prevalence among women is more than 20 percent)*	(WHO 2019)	✗ ten percent (MDHS 2016–17)	✗	NA	✗	NA
12	**Daily or intermittent IFA supplementation** *(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)*	(WHO 2019)	✓	✓	INNSP 2013–2017; NRHS 2014–2018	✓ **RMCH Services**	3
13	**Vitamin A supplementation** *(Where five percent or more of women have a history of night blindness during pregnancy 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	**Calcium supplementation** *(Where dietary calcium intake is low)*	(WHO 2019)	✓	✗	NA	✗	NA
15	**Iron-containing micronutrient powder (MNP) supplementation** *(Settings with a high prevalence of nutritional deficiencies)*	(WHO 2019)	✗	✗	NA	✗	NA
16	**Preventive deworming** *(Where pregnant women have a 20 percent or higher prevalence of infection with hookworm or T. trichiura infection AND a 40 percent or higher prevalence of anemia)*	(WHO 2019)	✓	✗	NA	✗	NA

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)
17	**Tetanus toxoid vaccination** *(All countries, all settings)*	(WHO 2016)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
18	**Nutritional counseling on healthy diet** *(If underweight prevalence among women is more than 20 percent)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
19	**Weight monitoring** *(All countries, all settings)*	(WHO 2016)	✓	✓	ENAP 2016–2020	✓ **RMCH Services**	3
20	**Advice about weight after weighing** *(All countries, all settings)*	(WHO 2016)	✓	✓	ENAP 2016–2020	✓ **RMCH Services**	3
21	**Advice on consuming calcium** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA
22	**Advice on consuming IFA** *(All countries, all settings)*	(WHO 2019)	✓	✓	ENAP 2016–2020	✓ **RMCH Services**	3
23	**Advice on consuming additional food** *(All countries, all settings)*	(WHO 2019)	✓	✓	ENAP 2016–2020	✓ **RMCH Services**	3
24	**Advice on birth preparedness** *(All countries, all settings)*	(WHO 2015)	✓	✓	ENAP 2016–2020	✓ **RMCH Services**	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)
25	**Advice on exclusive breastfeeding** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017; ENAP 2016–2020	✓ **RMCH Services**	3
	Delivery and postnatal						
26	**Institutional birth** *(All countries, all settings)*	(EWEC 2016)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
27	**Skilled birth attendant** *(All countries, all settings)*	(EWEC 2016)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
28	**Optimal timing (delayed) of umbilical cord clamping** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA
29	**Assessment of birth weight** *(All countries, all settings)*	(WHO 2013)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
30	**Support for early breastfeeding and immediate skin-to-skin contact** *(All countries, all settings)*	(WHO 2019)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
31	**Optimal feeding of low-birth-weight infants** *(All countries, all settings)*	(WHO 2019)	✓	✓	NRHS 2014–2018; ENAP 2016-2020	✓ **RMCH Services**	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)
32	**Counseling of mothers of low-birth-weight infants on Kangaroo Mother Care (KMC)** *(All countries, all settings)*	(WHO 2019)	✓	✓	NRHS 2014–2018; ENAP 2016–2020	✓ **RMCH Services**	3
33	**Postnatal care for babies around day three, day seven, and within six weeks after birth** *(All countries, all settings)*	(EWEC 2016)	✓	✓	NRHS 2014–2018; ENAP 2016–2020	✓ **RMCH Services**	3
34	**Postnatal care for women within three and seven days and within six weeks after delivery** *(All countries, all settings)*	(EWEC 2016)	✓	✓	NRHS 2014–2018; ENAP 2016–2020	✓ **RMCH Services**	3
35	**Breastfeeding counseling** *(All countries, all settings)*	(WHO 2019)	✓	✓	NRHS 2014–2018	✓ **RMCH Services**	3
36	**IFA supplementation** *(If a 20 percent or higher population prevalence of gestational anemia)*	(WHO 2019)	✓	✗	NA	✗	NA
37	**Food supplementation for malnourished lactating women** *(All countries, all settings)*	(WHO 2018)	✓	✗	NA	✗	NA
	Early childhood						
38	**Breastfeeding counseling** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	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)
39	**Counseling on appropriate complementary feeding** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
40	**Food supplementation for complementary feeding** *(In food-insecure populations)*	Bhutta et al. 2013; eLENA (WHO n.d.)	✓	✗	NA	✗	NA
41	**Iron-containing MNP** *(In which the prevalence of anemia in children under five years of age is 20 percent or more)*	(WHO 2019)	✓ 50 percent (MDHS 2016-17)	✗	NA	✗	NA
42	**Daily IFA supplementation** *(Daily if anemia prevalence among children aged six to 59 months is 40 percent or more; intermittent for children ages 24 to 59 months if anemia prevalence in this group is 20 percent or more)*	(WHO 2019)	✓ 50 percent (MDHS 2016-17)	✗	NA	✗	NA
43	**Zinc supplementation during diarrhea** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
44	**ORS during diarrhea** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	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)
45	**Vitamin A supplementation** *(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)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
46	**Preventive deworming** *(Living in areas where the baseline prevalence of any soil-transmitted infection is 20 percent or higher among children aged 12 months and older)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
47	**Growth monitoring (weight assessment)** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
48	**Counseling on nutritional status** *(All countries, all settings)*	(WHO 2019)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3
49	**Identification of severe or moderate underweight** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA
50	**Inpatient management of severe acute malnutrition (SAM)** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA
51	**Outpatient management of SAM** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA
52	**Management of moderate acute malnutrition (MAM)** *(All countries, all settings)*	(WHO 2019)	✓	✗	NA	✗	NA

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)
53	**Immunization** *(All countries, all settings)*	(EWEC 2016)	✓	✓	INNSP 2013–2017	✓ **RMCH Services**	3

NA = Not applicable

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

S.N	Nutrition actions	Program Implementation/operational guidelines
	Preconception	
1	Contraception	*National Standards for Family Planning Services (2005)*: A range of family planning methods are available in Maldives from which a couple can choose a method that is most suitable for them. The provider's role is to assist the client in making an informed decision and then provide the chosen method.
	Pregnancy	
2	Nutritional counseling on healthy diet	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) advises that during pregnancy and lactation periods a variety of foods should be eaten every day from at least five food groups; through pregnancy and lactation, regular meals—including breakfast—should be eaten and a woman should get regular exercise.
3	Advice on consuming IFA	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) states that before and during pregnancy, IFA supplements should be taken as recommended by a healthcare provider.
4	Advice on consuming additional food	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) advises that during pregnancy and lactation periods a variety of foods should be eaten every day from at least five food groups; through pregnancy and lactation, regular meals—including breakfast—should be eaten and a woman should get regular exercise.
5	Advice on exclusive breastfeeding	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) emphasizes the importance of pregnant and lactating mothers maintaining an appropriate diet and weight and that they should be informed on the importance of immediate and exclusive breastfeeding.
	Delivery and postnatal	
6	Support for early breastfeeding and immediate skin-to-skin contact	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) advises that the baby should be put to the breast immediately after birth and that ONLY breast milk should be fed for the first full six months of life.
7	Breastfeeding counseling	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) states that postpartum women should receive the following message from healthcare workers: breastfeed frequently when your baby demands, day and night, to build up your milk supply; ensure proper positioning and attachment of your baby to the breast.
	Early childhood	
8	Breastfeeding counseling	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) advises that mothers should put their baby to the breast immediately after birth and that they should feed ONLY breast milk for the first full six months of life, even if the mother is working. It advises that when separated from her baby, a mother should express breastmilk to feed during the separation, and that a mother should continue to breastfeed until her child is at least two years old.

S.N	Nutrition actions	Program
		Implementation/operational guidelines
9	Counseling on appropriate complementary feeding	*Social and Behavior Change Communication Strategy: The First 1000 Days Matter 2019–2021* (UNICEF, Ministry of Health 2019) advises that babies should be fed thick soft foods from six months old and that a variety of minced or mashed vegetables and egg/fish/chicken/meat should gradually be introduced to enrich the baby's porridge.
10	Immunization	The National Immunization Program aims to reduce mortality and morbidity by protecting children from the following vaccine-preventable diseases: tuberculosis, diphtheria, pertussis, poliomyelitis, measles, hepatitis B, mumps, rubella, and haemophilus Influenzae type b.

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
1. Immediate determinants		
a. Inadequate nutrient intake by children		
Breastfeeding	Integrated National Nutrition Strategic Plan (INNSP) 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to promote, protect, and support exclusive breastfeeding; this includes reviewing the status of the Baby-Friendly Hospital Initiative (BFHI), providing training for BFHI, extending maternity leave to at least six months, enforcing national regulation of marketing of breast milk substitute. The INNSP also aims to advocate for the provision of training, materials, and tools for Behavior Change Communication (BCC) in order to improve education on nutrition during pregnancy and to provide better counseling and support for mothers on exclusive breastfeeding and complementary feeding.
Complementary feeding	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to empower mothers and caregivers (including childcare workers in state care facilities for children) to practice recommended infant and young child feeding (IYCF) practices. The INNSP also aims to advocate for the provision of BCC training, materials, and tools in order to improve nutrition education during pregnancy and the counseling and support of mothers on exclusive breastfeeding and complementary feeding.
Infectious diseases	-	-
a. Inadequate intake by mothers	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to conduct nutrition assessment as part of ANC and to provide dietary advice from early pregnancy through ANC clinics and visits; the INNSP also aims to improve the nutrition status of young women and pregnant mothers.
2. Underlying determinants		
a. Women's status		
Education	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to: provide opportunities for secondary education through distance learning; provide hostel facilities on islands for girls attending secondary and higher education; provide free/subsidized transport services for girls who attend secondary schools on islands near their own.
Right age of marriage/childbirth	-	-
b. Sanitation and hygiene	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to: encourage children and caregivers to wash hands with soap and water before eating, feeding and food preparation; provide soap and water or antiseptic handwash in school toilets, childcare facilities, health

		facilities, and public places; disseminate hygiene and handwashing messages through mass media and Information, Education, and Communication (IEC) materials.
c. Food security	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to ensure food security (availability of, and access to, safe and nutritious food) throughout the country at the household level.
d. Socio-economic conditions	INNSP 2013–2017	The *Integrated National Nutrition Strategic Plan (INNSP) 2013–2017* (Ministry of Health, 2016) aims to establish a social protection system that is preventive, promotive, and transformative.

References

Aga Khan University; Maldives Ministry of Health; and UNICEF. 2007. *National Micronutrient Survey.* Male: Ministry of Health.

Bhutta, Zulfiqar A., J. K. Das, A. Rizvi, M. Gaffey, N. Walker, S. Horton, P. Webb, A. Lartey, and R. Black. 2013. "Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?" *The Lancet* 382 (9890): 452–477. DOI: 10.1016/S0140-6736(13)60996-4.

Black, Robert E., C. G. Victora, S. P. Walker, Z. A. Bhutta, P. Christian, M. de Onis, M. Ezzati, S. Grantham-McGregor, J. Katz, R. Martorell, R. Uauy, and the Maternal and Child Nutrition Study Group. 2008. "Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries." *The Lancet* 382 (9890): 427–451. DOI**:** 10.1016/S0140-6736(13)60937-X.

EWEC (Every Woman Every Child). 2016. *The Global Strategy for Women's, Children's and Adolescents' Health 2016–2030.* New York: Sustainable Development Goals. http://globalstrategy.everywomaneverychild.org/.

Gillespie, Stuart, P. Menon, R. Heidkamp, E. Piwoz, R. Rawat, M. Munos, R. Black, C. Hayashi, K. K. Saha, and K. Requejo. 2019. “Measuring the Coverage of Nutrition Interventions Along the Continuum of Care: Time to Act at Scale.” *BMJ Global Health* 4 (S4). https://gh.bmj.com/content/4/Suppl_4/e001290.

Maldives, Ministry of Health. n.d. *National Reproductive Health Strategy 2014–2018.* Male: Health Protection Agency, Ministry of Health. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_532837.pdf.

Maldives, Ministry of Health, 2014. *Multi-Sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases in Maldives (2014-2020). Male: Ministry of Health and WHO Country Office.*

Maldives, Ministry of Health. 2014. *Health Master Plan 2016–2025*. Male: Ministry of Health. http://extwprlegs1.fao.org/docs/pdf/mdv188848.pdf.

Maldives, Ministry of Health. 2016a. *Integrated National Nutrition Strategic Plan* (*2013–2017).* Male: Health Protection Agency, Ministry of Health. http://extwprlegs1.fao.org/docs/pdf/MDV177452.pdf.

Maldives, Ministry of Health. 2016b. *National Child Health Strategy—Every Newborn Action Plan (2016–2020).* Male: Ministry of Health. https://www.unicef.org/maldives/media/1016/file/National percent20Child percent20Health percent20Strategy percent20- percent20Every percent20Newborn percent20Action percent20Plan.pdf.

Maldives, Ministry of Health, and ICF. 2018. *Maldives Demographic and Health Survey 2016–17.* Male: Ministry of Health; Rockville, Maryland, USA: ICF. https://dhsprogram.com/pubs/pdf/FR349/FR349.pdf.

National Program on Immunization. 2015. *Immunization Handbook for Health Care Professionals* . Male: Health Protection Agency, Republic of Maldives.

Nguyen, T., A. Darnell, A. Weissman, J. Cashin, M. Withers, R. Mathisen, K. Lapping,T. Mastro, and E. Frongillo. 2020. “National Nutrition Strategies That Focus on

Maternal, Infant, and Young Child Nutrition in Southeast Asia Do Not Consistently Align With Regional and International Recommendations." *Maternal and Child Nutrition*. https://doi.org/10.1111/mcn.12937.

UNICEF. 1991. "Strategy for Improved Nutrition of Children and Women in Developing Countries." *Indian Journal of Pediatrics* 58: 13–24. https://doi.org/10.1007/BF02810402.

UNICEF, and Maldives, Ministry of Health. 2019. *Social and Behavior Change Communication Strategy: The First 1000 Days Matter (2019–2021).* Male: National Nutrition Program.

WHO (World Health Organization) Country Office for the Republic of Maldives and Health Protection Agency. 2011. *STEPS Survey on Risk Factors for Noncommunicable Diseases* Male: World Health Organization and Health Protection Agency.

WHO (World Health Organization). n.d. *e-Library of Evidence for Nutrition Actions (eLENA)*. Geneva: World Health Organization. https://www.who.int/elena/en/. Accessed June 19, 2019.

WHO (World Health Organization). 2004. *Making Pregnancy Safer: The Critical Role of the Skilled Attendant. A Joint Statement by WHO, ICM and FIGO.* Geneva: World Health Organization. https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/9241591692/en/.

WHO (World Health Organization). 2013. *WHO Recommendations on Postnatal Care of the Mother and Newborn.* Geneva: World Health Organization. https://www.who.int/maternal_child_adolescent/documents/postnatal-care-recommendations/en/.

WHO (World Health Organization). 2015. *WHO Recommendations on Health Promotion Interventions for Maternal and Newborn Health 2015.* Geneva: *World Health Organization.* https://apps.who.int/iris/bitstream/handle/10665/172427/9789241508742_report_eng.pdf]?sequence=1.

WHO (World Health Organization). 2016. *Recommendations on Antenatal Care for a Positive Pregnancy Experience.* Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241549912.

WHO (World Health Organization). 2017. *Global Nutrition Monitoring Framework: Operational Guidance for Tracking Progress in Meeting Targets for 2025.* Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241513609.

WHO (World Health Organization). 2018. *Guideline: Implementing Effective Actions for Improving Adolescent Nutrition.* Geneva: World Health Organization. https://apps.who.int/iris/handle/10665/260297.

WHO (World Health Organization). 2019. *Essential Nutrition Actions: Mainstreaming Nutrition Through the Life-Course.* Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241515856.