Rapid Assessment Summary

for Development of Social & Behaviour Change Communication Strategy

THE FIRST 1000-DAYS OF LIFE

1000

Health Protection Agency

Ministry of Health
Republic of Maldives

unicef
for every child

Published in Maldives, 2019

The Maldives 'First 1000-Days of Life SBCC Strategy' was informed by contextual situation analyses, comprising a review of available literature and a rapid contextual assessment (utilizing key informant interviews and focus group discussions) conducted during November to December 2017.

A summary of the findings is presented below. The potential contributors to malnutrition are presented within the format of the UNICEF Conceptual Framework of the Determinants of Malnutrition.This is followed by a section on the potential enablers or opportunities to utilize in the SBCC to improve maternal and infant and young child feeding and caring practice.

MATERNAL AND CHILD MALNUTRITION

Despite some noteworthy health improvements, the Maldives population is suffering from the coexistence of seemingly contrasting and confounding forms of malnutrition known as the double burden of malnutrition. It is characterized by the co-existence of under-nutrition (including wasting, stunting[1] and deficiencies in important micronutrients) among young children along with those associated with excess, shown as increasing rates of child, adolescent, and adult over-weight and obesity[2] , and diet-related NCDs[3].

Existence of a double burden of malnutrition represents a serious public health challenge.

To optimize a child's physical, cognitive and social development and reduce their risk of NCD in adulthood requires good maternal nutrition and appropriate breastfeeding and complementary feeding practices. Prevention of obesity in childhood and adolescence is also important. The following are key findings, and listed in broad terms, the sampling size is small, hence has limitations.

IMMEDIATE CAUSES

The UNICEF Framework presents the basic causes as being related to inadequate dietary intake and disease.

Maternal

- **Diet of most pregnant women have limited diversity & animal protein; monotonous; nutrient-poor-** largely based on rice, roshi, dahl, fish; increasing intake of 'junk foods'
- **Reports of some women gaining too much weight in pregnancy** as 'eat for two', or pregnancy is an excuse to eat as desired and to not exercise. Some increase consumption of fruit and vegetables in the first month, then consumption wanes. Some consume fizzy drinks and/ or chocolate "to satisfy cravings". Concerning increase in gestational diabetes.
- **Reported practice by a few women of intentionally eating less or "eating down"** during lactation/ post-delivery for the purpose of losing weight.

[1] *Stunting: low height for age. Wasting: low weight for height.*
[2] *Overweight –adult BMI ≥ 25. Obesity –adult: BMI ≥ 30.*
[3] *USAID. 2014. Multisectoral nutrition strategy. 2014-2025. USAID*

Infant and Young Child Feeding (IYCF)

IYCF -Breastfeeding

- **Relatively low levels of exclusive feeding:** Feeding of infant formula, water and sometimes other foods/ liquids prior to 6-months of age.
- **Introduction of infant formula concurrent with introduction of complementary foods common** (mixed feeding with breastmilk) especially when a mother is employed away from the house.
- **Traditional beliefs and practices:** Give prelacteal blessing of dates/honey. Give water or pomegranate juice to stop the white furriness on tongue; water given to satisfy babies thirst.

IYCF -Complementary feeding

- **Issues linked to age-appropriate complementary foods -** Initiated too early (around 4 months) or too late; delayed introduction of considered allergenic foods to 9-24 months (eg: eggs, fish, and animal flesh foods; lack of progressive consistency/ texture of foods (common use of blender to puree too fine consistency).
- **Low nutrient density foods fed -** Low dietary diversity/quality; lack of essential vitamins & minerals, especially vitamin A (orange-yellow foods), iron (such as dark green leaves; animal-flesh), zinc
- **Lack of home fortification of complementary foods** (eg by addition of avocado, ground nuts/nut paste; ground dried fish, egg)

UNDERLYING CAUSES

Underlying causes, as presented in the UNICEF Conceptual Framework of the determinants of malnutrition, are related to: Household Food Insecurity. Inadequate care and feeding practices. Unhealthy household environment and inadequate health services.

Maternal

- **A number of women appears to have low knowledge of physiological state of pregnancy** & foetal development process in relationship to diet and weight; rationale for supplementation; short & long-term effects of diet & weight for child & mother. Mixed knowledge on appropriate weight gain during pregnancy; some erroneously believe a standard 12kg required
- **Poor knowledge of nutritious food preparation methods & nutrition.** Typical family diet not appropriate for pregnant or lactating women or for modification as complementary food.
- **Education on maternal diet seldom given by health professionals** during pregnancy & lactation; weight education provided by some doctors.

Infant and Young Child Feeding

IYCF -Breastfeeding

- **Most have limited knowledge of benefits of & rationale for recommended practices & understanding of the milk production/let-down process.** Perceived insufficient milk reason for baby crying.; properties of colostrum and adequacy of breastmilk not understood.
- **Poor skilled assessment & counselling support** for breastfeeding problems (eg: flat/inverted nipples; perceived milk insufficiency); water or formula advised by some health staff, including doctors. Temporary formula use recommended by health staff post-caesarean delivery.
  Note: Bottled water given; it is considered safe/ sterile, given without further treatment.

- **Traditional beliefs:** feeding prelacteals while the 'Adhan' is recited; tongue cleansers; kangaroo care after post-delivery not practised for most cases. Chili & spicy foods considered fine to eat during lactation. Belief that mothers need to drink milk to produce breastmilk/ increase milk supply
- **Maternal employment/activities away from the house:** lack of skills & motivation for milk expression; lack of workplace breastfeeding rooms; No childcare facilities are available at workplaces; private child-care is expensive.
- **Convenience and time-saving:** Easy access to infant formulas, including purchase at hospital pharmacies
- **In some cases, women's concern with body shape, increasing:** refraining from breastfeeding considering it adversely affects breast shape; women reducing food intake post-delivery to quickly lose weight –affects breastfeeding & breastfeeding performance.

IYCF -Complementary feeding

- **Poor functional knowledge & skills:** lack of knowledge of rationale for age of introduction of initiation & specific complementary foods, child development phases (eg: digestive, motor, brain), age-appropriate complementary feeding, feeding cues & stimulation & learning techniques. Most appears to have low level of knowledge regarding 'junk foods'/ poor nutrient content & effects. Lack of understanding of all forms of malnutrition (types, signs, symptoms, effects).
- **Poor responsive feeding practices:** Young children not actively fed; use of feeding bottles in some households; children entertained with mobile phone videos/ music while eating. Complementary feeding not age appropriate; lack of baby-led feeding (mixed with care-giver-led)
- **Most want convenience & time-saving &/or prefers ease** especially Male' working mothers; mothers use blenders for food preparation & feeding bottles (resulting in smooth consistency foods; introduce infant formula concurrently with start of complementary feeding period; feeding packaged infant cereals; Increased feeding of snack foods of low-nutrient density & high trans-fatty acid content & sugar-sweetened fruit juices.
- **Traditional beliefs:** eg: late introduction of potentially allergenic foods, animal foods, encouraged by some health professionals. Eating by hand & child-led feeding/ feeding by themselves commonly delayed until after 2-years.
- **Male': Restricted space for food preparation,** due to congested living conditions (small space & shared living)
- **Families are not positive role models of feeding practices.** Family diet is monotonous, lacks nutrient density & dietary diversity (esp: animal source foods; fruit and vegetables. The typical family meals are: Breakfast: roshi, mashuni, dahl/fish curry, black tea or juice. Lunch: Rice, fish soup (garudhiya) or curry. Sometimes noodles/pasta. Dinner: rice/roshi, dahl. Vegetables are a complement/'garnish' amount (often cooked in oil). Short eats: tea; sometimes fruit. Junk food widely consumed by populations of Kaaf & Alif Alif Atolls. Families commonly don't concurrently share meal times.
- **Family food/diet not appropriate for young children,** modification of ingredients & preparation methods required.
- **Specific food prepared for children** which increases time spent on food preparation, compared to modifying family food
- **Complementary feeding typically not done concurrently with family meal time.** This reduces young children's exposure to seeing different food types which, along with other practices, can influence their inquisitive nature to try a variety of foods.
- **Sources of information on feeding not always credible** (internet; social media); mothers access information on internet and social media (especially Viber & Facebook) & do not know how to discern credible information. Doctors and other healthcare professionals too sometimes appears to provide erroneous information, according to Focus group participants.
- **Concern about the safety of locally grown foods:** preference by some for imported, packaged foods rather than locally grown due to reports of harmful chemicals used in local agriculture.

- **Local foods commonly less preferred to imported foods which can constrain food selection.**
  "Fathers frequently travel to Male' to take produce. Food is grown here & cheaper than Male' however people prefer to eat imported foods. People used to grow a lot of fruits & vegetables but now mainly cash crops" (Healthcare worker)

Note: On Male' eating out or purchasing cooked food is common. On the Islands meals are typicallyprepared at the house and mostly eat fruits and vegetables on Fridays.

Caregiving

- **Some islands:** Fathers not available for caregiving support, as away working (commonly, 3-months away and 1-week home).
- **Male':** Lack of work-based on-site child care or private areas for breastfeeding.

Healthcare services

- **Seeming absence of differentiated approaches to health service delivery**, as required given the geographical layout of the country & demographic differences between islands.
- **Geographical, human resource & funding constrains provision of quality health services**
- **Absence of education & counseling support provided at multiple key contact points:** ante-natal care (including breastfeeding counseling in third trimester), growth monitoring, immunization, child health visits. IYCF counseling during routine growth monitoring and immunization sessions is mandated however it is generally not provided, even if the child is under/over-weight -reasons given: lack of staff; insufficient staff training; time constraints; no space/privacy.
  "Mothers report that health staff shows they are too busy or not interested in providing information on IYCF." (Healthcare worker)
- **Knowledge & skills gaps frontline healthcare workers are widespread** regarding maternal nutrition & weight & IYCF recommendations & the rationale.
- **Poor referral systems for cases of nutrition/ growth concern on some islands Inconsistent, incomplete or confusing messages are delivered** by healthcare workers within & between different health services.
- **Family Health Officers & Community Health Officers seemingly lack motivation & confidence** for providing education and counselling to caregivers
  "I & the staff wait for patients. We have a lot of time when there are no patients, yet the staff are not motivated to work on other tasks during this time eg: household visits, education, researching the internet to upskill their information". (Doctor)
- **Child Health Record has limited IYCF information,,** Growth monitoring platform not utilized for IYCF a lost opportunity to include IYCF milestones checklist information for counseling.
- **Lack of counseling provided for breastfeeding difficulties:** some staff (including doctors) advise to provide water and/or infant formula to infants aged <6-months, rather than providing assessment & counselling support (positioning & attachment; estimating adequacy of urine & faeces output to check breastmilk adequacy, etc.
- **Absence of community-based outreach activities** eg: household visits; support/ action-oriented groups.Healthcare providers lack understanding of the benefits of outreach activities & seemingly lack the confidence & skills to facilitate them. This may contribute to lack of motivation to conduct them.*"We tried to facilitate group sessions but after the first session numbers were too low, so we stopped".* (Healthcare worker)

- **Unavailability & use of quality maternal nutrition** & IYCF IEC materials. Some facilities lack materials; some have materials however staff don't use them or have not given them to caregivers.
- **Low coverage, intensity & contextual targeting of trainings & lack of post-training follow-up.** Additionally, sometimes participants are not the most appropriate to attend. Trainings following the TOTs are not being facilitated -staff cite reasons as lack of funds for transport, food/ accommodation & space to facilitate the trainings; lack of confidence, motivation &/or capacity of staff for facilitating TOTs could also be reasons.
- **Lack of job aids** such as checklists, charts, demonstration tools, activity facilitation manuals, etc
- **Absence of on-the-job supervision & monitoring of staff performance** & absence of monitoring tools & procedures. *"We don't have budget to make supervisory visits to other islands in the Atoll"* (Hospital Manager)
- **Absence of mentoring & coaching of staff** to support confidence & motivation.
- **High dependence, & rapid turnover, of expat doctors, who may lack local language skills & contextual knowledge**; (policies/guidelines/protocols). This creates barriers to the doctors developing a confiding & informed relationship, & thereby provision of appropriate counselling & education. Some doctors recommend provision of water and infant formula to infants aged under-6 months, without breastfeeding assessment.Expat doctors/ medical have only a 1-hour induction/orientation in Male' prior to starting work (at the time of assessment), reportedly due to need to take up their posts to reduce gaps in medical personal at facility level & cost of accommodation in Male'.
- **Health care staff not seen as positive role models by most** -Community members see them with energy drinks & 'junk foods' & feeding infant formula to their children aged <6-months.
- **Lack of budget** for special health promotion events/ activities

BASIC CAUSES

The UNICEF Conceptual Framework of the determinants of malnutrition presents basic causes as related to: Household access to adequate quantity and quality of resources. Inadequate financial, human and physical and social capital. Socio-cultural, economic and political context.

FGD

- **Identification of which Maldives mass media radio & TV to use for awareness is constrained by political affiliation & the absence of monitoring** (reach, coverage etc) by Broadcasting Corporations
- **'Junk' foods are widely promoted.** Food & drink companies sponsor (& advertise 'junk foods/ drinks' through) national events, commodities & facilities (especially sports); political interests are implicated. School special events provide fizzy/energy drinks & unhealthy foods.
- **No cost-of-diet survey, household economy survey, or similar, has been conducted to identify the affordability of foods at household level.** This is required to confirm the formative research findings that food affordability is not a determinant of feeding practices.
- **Lack of quality standards & enforcing adequate regulation & legislation measures for food production & labelling.** The food standard & draft food bill -initiated in 2000, hasn't yet been legislated into a Food Act. Lack of mandatory Dhivehi & nutrient content & regulated pesticide & fertilizer use for locally grown foods & no monitoring the safety of imported foods challenges caregivers' ability to provide assured safe nutrient-dense foods to their children.
- **Quality of imported fresh & frozen foods not regulated:** nutrient quality of foods is not assured/known; storage and treatment methods could reduce nutrient density of fruit & vegetables given to children.

Social context

Barriers to community support for SBCC activities focused on improved nutrition behaviours during the first 1000-days of life were also identified, as presented below:

- **Weak community cohesiveness & collaboration,** largely associated with strong political divisions within communities.
- **Difficult to get community members involved in community activities,** due to 'individualism' & Male' also due to busy lives & women in employment.
- **Few local NGOs/ CBOs,** particularly those working with health; most commonly CBOs are involved with sport.
- **Challenging to work with volunteers,** due to the transient nature as typically they are youths seeking employment.
- **Health not considered the shared responsibility of family & community,** but rather the mandate of healthcare facilities.
- **Unhealthy foods are elevated as social status foods, & served on special occasions**
- **Population is generally easily influenced by market-driven consumerism**
- **Population easily influenced by opinion of others & social norms** especially trends in Male'

ENABLERS OR OPPORTUNITIES

Enablers or opportunities for improving maternal and infant and young child nutrition, identified through the formative research, are presented below. They relate to feeding and caring practices and communication and are considered at five levels of influence: Individual; Household; Community; Healthcare Institutions; National Environment. This information can be utilized, as appropriate, in the design and implementation of the SBCC strategy.

INDIVIDUAL LEVEL

Maternal nutrition

- **High attendance at key healthcare facility contact points:** Typically, attend 4 ANC visits during pregnancy & post-natal care
- **High compliance with supplementation during pregnancy** (iron & folic acid)
- **Food affordability not seemingly constraint to food selection;** availability of a wide selection of foods a constraint in a few locations; locally grown food is available though not valued/utilized.
- **Doctors most trusted source of information,** esp specialists. Other healthcare workers generally not trusted.
- **Awareness of some foods recommended during pregnancy:** "fruit & vegetables good"; "coffee, fizzy drinks avoid"
- **Accessibility to a wide variety of media forms;** high use of internet & mobile social networks

Infant and Young Child Feeding Breastfeeding

- **Mothers have universal knowledge of the recommended breastfeeding practices.**
- **Caregivers proactively seek information, wanting the best for their children;** parenting most popular online topic. Doctors most trusted (esp Specialists)
- **High contact with healthcare service delivery points:** almost universal rate of institutional deliveries, growth monitoring (until age-5 done by Nurse/Family/Community Health Officer), Immunization & post-natal check-ups- provide opportunity for education & counselling.

- **All children born are registered** at the healthcare facility.
- **Belief to avoid coffee and fizzy drinks during lactation, by some mothers.**
- **High rates of early initiation**/ feeding colostrum. Newborns placed on mothers' stomach immediately post-delivery increasingly common
- **Employment Act provides maternal caregiving support:** At the time of field assessment, mothers get 60-days maternity leave, & return-to-work, 2/day 30min breastfeeding breaks and flexi-time
- ***The WHO Breast Milk Substitute Code*** **regulations exist**

Complementary feeding

- **Mothers universally know the recommended age to introduce complementary foods.**
- **Mothers proactively seek information to themselves gain knowledge;** and triangulate information found on internet, advice from others (eg: grandmothers) and information provided by health professionals
- **Doctors are most trusted sources of information**
- **High attendance at healthcare facility contact points** provides opportunity for counseling/ education: (ANC/PNC/Vaccinations/Growth Monitoring etc)
- **Caregiving support available to alleviate women's workload:** High ownership of household appliances; extended family households (eg: grandmother) common except Male'.
- **Affordability seemingly not a constraint. Mothers will prioritize food purchases for their children.** *"Affordability is not a constraint; culture determines food eaten."* (Healthcare worker) Preferred complementary foods to give include: carrot, cabbage, mango, apple, orange. Packaged cereals also commonly fed.

  Of note: *What parents desire for their children ('Motivators') are for the child to be healthy and happy/not crying.*

HOUSEHOLD LEVEL

- **Mothers & fathers want to do the best for their children**
- **Mothers are the primary decision-maker about IYCF & family food.** Mothers consider advice provided by family members along with information accessed from other sources. Mothers seek fathers support regarding healthcare.
- **Fathers share caring roles, when available:** Fathers commonly accompany wife to ANC. Some fathers take child for growth monitoring & immunization. Fathers are increasingly participating in sharing care-giving roles, especially in Male'.
- **Grandmothers commonly support caregiving**, accompany wife to post-natal care when available; support child-minding. Extended family support is widely available on the islands.
- **High access to communication technology.**

COMMUNITY LEVEL

- **Literate population**
- **High accessibility to a variety of communication tools** – every family has mobile phone, access to internet, radio, television; high use of social media networks. (Radio and television not commonly accessed by primary caregivers.)
- **Community authorities/ Atoll & island councils supportive,** representatives indicated their collaborative support to healthcare facilities (eg: organizational, financial, transport, human) for '1000 day window of opportunity' activities.*"We will be involved with any health-related activity, in collaboration with the health facility. We can support transportation & visiting other islands if they give diesel for the boat. So, plan programmes at atoll level."* (Atoll Council)

- **School platform is influential in encouraging participation of parents** and offers an opportunity for invitations to attend community-based support group sessions to be arranged in collaboration with schools, & integration of maternal & child nutrition into vocational/ skills-based training initiatives.
- **SHE & ARC (NGOs) are active with community nutrition activities.** Generally, SHE supports maternal and child community & healthcare services activities; ARC supports school-age.
- **Pre-service marriage meetings compulsory**; a health component offers opportunity to integrate maternal nutrition/ IYCF messaging. Eg: Sh.Funadhoo: Pre-marriage counselling facilitated by Magistrate; optional health component provided by healthcare workers. Rasdhoo: Magistrate keen to include nutrition & health in pre-marriage meeting.

HEALTHCARE INSTITUTION LEVEL

- **Accessibility to population:** small geographic coverage area & population per health staff on most islands; contact with healthcare providers frequent.
- **Doctors are the most trusted sources for information on health issues:** Pediatricians for information on IYCF; Gynecologists for maternal care.
- **Public Health Unit staff are (reportedly) aware of all pregnant women**
- **Awareness of all newborns.** It is mandated that all children be registered immediately after birth
- **Some maternal nutrition & IYCF resources available at some healthcare facilities** .
- **Multimedia screens (TV) are available in some healthcare facilities.**
  "There is a Tv screen in the waiting area which plays a nutrition and hygiene video in English with animated cartoons, directed at school-age children which we downloaded from internet, YouTube. It is brief but gives a lot of information and some people ask questions from watching it." (Healthcare worker)
  One healthcare worker who had attended an IYCF training was informed to provide information: *"Feeding complementary foods in a bottle affects the teeth, lack of responsive feeding, child doesn't know what food is given as does not see the food, and the consistency is too thin, and children don't feel the food"* (Healthcare worker)

NATIONAL LEVEL

- **Nutrition is embedded in numerous policies, strategies & guidelines** across government sectoral departments
- **Social security protection** is available to single mothers
- **Maternity Protection Legislation exists**, providing 60 days maternity leave &returned-to-work breastfeeding 30min/day breaks & flexi-time. Currently 6 months paid maternity leave has been recently announced by the Government.
- **Laws mandates media to provide 10 mins/day of free airtime under CSR.**
- **Advertising restrictions exist to protect children:** no advertisement of infant foods allowed (no milk products to children <3years and no complementary foods, eg cereals, purees, juices, to children aged <1year); foods cannot be shown to be targeted for children aged <2 years.

Page 1

[2] *Overweight –adult BMI ≥ 25. Obesity –adult: BMI ≥ 30.*
[3] *USAID. 2014. Multisectoral nutrition strategy. 2014-2025. USAID*

Page 2

[4] *Ministry of Health and Family. 2009. Maldives Demographic and Health Survey 2009*
[5] *Ministry of Health and Family. 2009. Maldives Demographic and Health Survey 2009*
[6] *Ministry of Health and Family. 2009. Maldives Demographic and Health Survey 2009*
[7] *Ministry of Health Maldives; UNICEF; Aga Khan. 2007. Project report National micronutrient survey 2007*
[8] *Ministry of Health. 2017. Maldives Health Profile 2016*
[9] *Ministry of Health and Family. 2009. Maldives Demographic and Health Survey 2009*

Page 3

[10] *Women with a body mass index (BMI) below 18.5 are considered too thin, reflecting chronic energy deficiency.*
Women with a BMI ≥25kg/m2 are overweight, while a BMI over 30 is considered obese
[11] *WHO. 2014, WHO STEPS survey on risk factors for non-communicable diseases: Maldives, 2011*
[12] *Ministry of Health Maldives; UNICEF; Aga Khan. 2007. Project report National micronutrient survey 2007*
[13] *Ministry of Health and Family. 2009. Maldives Demographic and Health Survey 2009*

Health Protection Agency
Roashanee Building (4th Floor),
Sosun Magu,
Male', Republic of Maldives

UNICEF Maldives
Thuniya Building 5th floor,
Boduthakurufaanu Magu,
Male', Republic of Maldives