Technical Assistance to Strengthen Capabilities (TASC) Project

Improving How FCDO Reaches Those Most-at-risk of Malnutrition (TOR 2090003-C2-O1-S3-A02)

DELIVERABLE 5: Final Guidance to FCDO on Reaching Most-at-risk Groups

9 November 2021

SUBMITTED BY DAI IN ASSOCIATION WITH

Nutrition Works
International Public Nutrition Resource Group

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About TASC

Technical Assistance to Strengthen Capabilities (TASC) is part of the broader Technical Assistance for Nutrition (TAN) Programme, funded by UK Aid, which is a mechanism to provide technical assistance to Scaling Up Nutrition (SUN) country governments and build capacities towards advancing multi-sector nutrition agendas, in line with the SUN Movement principles and roadmap.

The objective of the TASC Project is to provide:

1. Technical assistance to Governments in the SUN Movement and to the SUN Movement secretariat (SMS) to catalyse country efforts to scale up nutrition impact (Component 1) in 60+ SUN Movement countries.
2. Technical assistance to the Foreign, Commonwealth and Development Office (FCDO) to maximise the quality and effectiveness of its nutrition-related policy and programmes, to support evidence generation and lesson learning and to develop nutrition capacity (Component 2).

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About This Publication

This document was produced by the TASC project to support FCDO in defining how FCDO staff can improve the design and targeting of FCDO investments to access and support most-at-risk groups for malnutrition and ensure that they are not being left behind by FCDO-supported programmes.

The initial version dates from September 2021; this updated version was prepared in October 2021 in response to a request from FCDO to include more emphasis on the need for greater beneficiary engagement and inclusion of people with disabilities in the design, implementation and monitoring of nutrition programmes.

The document was produced through support provided by UK aid and the UK Government; however, the views expressed do not necessarily reflect the UK Government's official policies.

TASC makes all efforts to provide correct information and links to source documents; however, cannot take responsibility if links are changed or removed.

Contents

Abbreviations

COVID-19	Coronavirus Disease 2019
CSO	Civil Society Organisation
DALYs	Disability-adjusted Life Years (DALYs)
DHS	Demographic and Health Survey
FCAS	Fragile and conflict-affected settings/situations
GESI	Gender Equity and Social Inclusion
GIS	Geographic information systems (GIS)
HR	Human Resources
ICAI	Independent Commission for Aid Impact
IDA	Iron Deficiency Anaemia
IDPs	Internally Displaced Persons
IYCF	Infant and Young Child Feeding
LMICs	Low and Middle Income Countries
MAM	Moderate Acute Malnutrition
MDD	Minimum Dietary Diversity
MICS	Multiple Indicator Cluster Survey
NGO	Nongovernmental Organisation
OCHA	UN Office for the Coordination of Humanitarian Assistance
SAM	Severe Acute Malnutrition
SBC	Social and Behaviour Change
SDG	Sustainable Development Goals
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SUN	Scaling Up Nutrition
TA	Technical Assistance
TASC	Technical Assistance to Strengthen Capabilities
TEAM	Technical Expert Advisory Group on Nutrition Monitoring
UN	United Nations
UN Human Rights	United Nations Office of the High Commissioner for Human Rights
UNICEF	United Nations Children's Fund
UNSDG	United Nations Sustainable Development Group
VAM	Vulnerability Analysis and Mapping
WASH	Water, Sanitation and Hygiene
WHA	World Health Assembly
WHO	World Health Organization

Glossary of Key Terms

Anaemia	A form of undernutrition; commonly in reference to iron-deficiency, in which person's level of red blood cells (in particular, haemoglobin) is lower than normal
Cash Plus	A programme model within the social protection field that entails combining cash transfers with programmes to improve access to and quality of services, with the aim of augmenting the positive effects of increased income/financial assets.
Dietary diversity	Variety in the number and type of foods in a person's diet over a set period of time; often used as a proxy measure for diet quality
Gender	Refers to the attributes, roles and opportunities that are associated with being women and men. These attributes, roles and opportunities are socially constructed and women and men, and society at large learns them through socialisation processes. These ideas shape how society understands the value of women and men, and the kinds of characteristics and behaviours that are considered appropriate and desirable for women and men. Gender does not refer simply to women or men but also to the relationship between them. These social definitions are not fixed, and are different in different contexts and change over time
Gender equity and social inclusion	A concept that involves addressing unequal power dynamics, needs, challenges and assets that exist based on gender and other traits (e.g., wealth, location, ethnic group, language and/or other characteristics) of a sub-population. A programme that incorporates GESI principles considers the above in programme design, implementation and monitoring.
Internally displaced persons	Constitute a 'population on the move' that stays within their own country; a highly vulnerable group that is often forced to move to locations within a given country, regardless of the reason (e.g., climate hazards, conflict, discrimination); often characterised by suboptimal living conditions, disrupted livelihoods, vulnerability to various human rights violations
Intersectionality	The idea that women and men who face disadvantage due to multiple social stratification categories, i.e. gender, race, disability, class and other identity characteristics, do not experience these independently but as a complex, interwoven, 'unique' experience of discrimination – where the interactions between the inequalities and injustices reinforce each other
Malnutrition	A condition that can manifest in many forms: undernutrition (e.g., stunting, wasting, underweight and micronutrient deficiencies) overweight, obesity and diet-related noncommunicable diseases
Multidimensional poverty	Not limited to a lack of money or income; a concept that also reflects other deprivations or disadvantages related to rights such as access to basic infrastructure (e.g., safe water and sanitation, adequate housing) and access to essential services such as health care, nutrition and education
Nutrition causal pathway	Combination and sequencing of factors identified to contribute to malnutrition
Nutrition-sensitive	Interventions that address underlying determinants of nutrition and development such as food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment—and incorporate specific nutrition goals and actions
Nutrition-specific	Interventions that address immediate determinants of nutrition and development such as adequate food and nutrient intake, feeding

	practices, caregiving and parenting practices, and low burden of infectious diseases
Pastoralists	Usually a nomadic society that relies on subsistence livelihoods centred on livestock and land for grazing
Persons with disabilities	As per the UN Convention on Persons with Disabilities, Persons with Disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others
Political economy	Refers to how socioeconomic and political dynamics impact resource allocation, participation of particular groups or constituencies in different realms of society and inclusive development
Severe acute malnutrition	Usually displayed as visible severe wasting, or the presence of nutritional oedema (a form of swelling due to fluid retention in the tissues); defined as a very low weight for height (below -3z scores of the median WHO growth standards)
Social inclusion	Linked to social exclusion, which refers to when individuals or groups are unable to participate in the economic, social, political and cultural life of their society, for example through restricted access to labour markets, land, and livelihood opportunities; citizenship rights, the ability to organise, exercise voice, demand rights and influence decision-making; and/or to infrastructure, basic services and amenities, social protection, public safety and social networks. *Social inclusion* thus refers to improving the ability, opportunity, and dignity of people to take part in society.
Stunting	A form of *under*nutrition; commonly used as a measure of chronic malnutrition in children; when the length- or height-for-age z-score more than two standard deviations below the median of the WHO Child Growth Standards
Wasting	A form of *under*nutrition; commonly used as a measure of acute malnutrition in children; when weight-for-length or -height z-is below the median of the WHO Child Growth Standards
Underweight	A form of *under*nutrition; weight for height (body weight) is too low for a person's age
Universal Health Coverage	Linked to Sustainable Development Goal 3 and calls for all countries to ensure that everyone has access to a minimum set of high-quality health interventions without having to face financial hardship; grounded in the notion that optimal health is a human right, not a luxury or privilege

Executive Summary

A 2020 Independent Commission for Aid Impact (ICAI) review of DFID's work on nutrition found that, while DFID/FCDO reached over 50 million individuals with nutrition programmes between 2015 and 2020, it needs to go further in reaching the most marginalised populations. Every sector has a role to play in improving nutrition outcomes for all. This guidance offers practical information on 1) how to identify population groups that are most nutritionally at-risk and 2) how to better address the nutritional needs of identified at-risk groups. It is organised according to key phases of the project cycle and includes annexes with further resources and analysis on at-risk groups and strategies to reach them.

WHO IS MOST NUTRITIONALLY AT-RISK: A review of the global nutrition literature highlights six priority at-risk groups: (1) children, adolescents and women in **deeply rural, remote and/or physically isolated** settings; (2) children in **urban/peri-urban slums and informal settlements**; (3) children and adolescents with **disabilities**; (4) children and women from **pastoralist/agro-pastoralist and nomadic** groups; (5) children and women from **marginalised ethnic groups** (e.g., tribal groups, indigenous groups); and (6) **internally displaced persons (IDPs), refugees and returnees**.

WHAT DRIVES ELEVATED MALNUTRITION RISK: Interlinkages between **poverty**, **marginalisation** and malnutrition feature strongly in the evidence on at-risk groups, with poverty acting as a key amplifier of malnutrition risk. Poverty influences **people's ability to access and consume nutritious foods**. Also, places where the poorest and most marginalised groups live are often characterised by **subpar access to quality nutrition-related services in different sectors**. Gender inequality and subpar women's empowerment are also underlying determinants of nutrition outcomes. The effects of climate change and an array of hazards such as conflict, socio-political instability and disease threats (e.g., COVID-19) also compound malnutrition risks within countries, particularly for vulnerable and marginalised groups.

HOW FCDO CAN BETTER REACH AT-RISK GROUPS: An important first step in identifying and prioritising nutritionally at-risk groups within a country is to **conduct a scoping exercise or rapid situational analysis**. This can be desk-based, fully exploiting available national and sub-national data to examine disparities between sub-populations and/or geographic locations. If there are information gaps, it might be necessary to explore ways of obtaining supplemental evidence (e.g., through qualitative data gathering with different stakeholders, leveraging of data from the private sector). Given the deep-seated vulnerabilities and systemic marginalisation associated with several at-risk groups, it is also extremely important to **take stock of the enabling environment and the stakeholder and partnership landscape**.

There are four key questions to examine when exploring strategy options to reach most at-risk groups: (1) What elements of the nutrition causal pathway need to be prioritised to improve nutrition-related outcomes in the identified at-risk groups? (2) What opportunities or entry points exist within FCDO-supported programmes in different sectors to address the above? (3) How specifically can existing programmes address the identified nutritional needs of at-risk groups? -AND- (4) How feasible versus impactful are those options in our local operating environment?

Effective strategies often involve combined interventions with intersectoral and multidisciplinary partners, beneficiary engagement, and collaboration between government, NGOs and private sector. Illustrative modalities employed within effective strategies are social and behaviour change interventions to tackle stigma against certain groups and improve nutrition-related practices, women's empowerment interventions, various forms of social transfers (cash or in-kind) and strengthening linkages/referrals to various services or markets. The guidance highlights broad strategy options to reach specific at-risk groups through different sectors.

It is important to revisit existing programme log frames and M&E systems to ensure that they are well-suited to monitor nutrition outcomes in at-risk groups, build in opportunities for soliciting and responding to beneficiary feedback, and track outputs and outcomes of different sectors in relation to those at-risk groups. Tracking the number and percentage of programmes that include targeted nutrition strategies for one or more of the identified at-risk groups, and setting targets and monitoring the progress of different sectoral programmes in reaching members of at-risk groups is advised. Adjustments such as the above will better position FCDO to support countries' achievement of nutrition targets and demonstrate a commitment to the 'Leaving No One Behind' agenda. This guidance gives examples of learning milestones and indicators. It also emphasises the importance of monitoring, feedback and accountability between programme implementers and members of at-risk groups to ensure that what is implemented and the manner in which it is implemented are both contextually appropriate and conducive to transformative, sustainable nutrition improvement in FCDO focus countries.

About This Document

This guidance document provides practical recommendations on 1) how to identify population groups that are most nutritionally at-risk and 2) how to better address the nutritional needs of identified at-risk groups. Given the multi-sectoral nature of nutrition, the document grounds the reader in the concept of 'Leaving No One Behind' and identifies ways to operationalise this agenda via FCDO's programmes in different sectors. To inform the development of this guidance, FCDO requested DAI's Technical Assistance to Strengthen Capabilities (TASC) team to conduct a series of global literature reviews on 1) at-risk groups and 2) effective strategies to address their nutritional needs.

This document is organised into two sections. Section 2 summarises global evidence on key population groups that are documented to be nutritionally at-risk in different settings. It also highlights important determinants or drivers of elevated malnutrition risk. Section 3 outlines how FCDO staff can identify and better support nutritionally at-risk groups in countries, exploring critical issues according to phases of the project cycle. There are also several annexes to this guidance, which include further information and resources pertaining to at-risk groups and effective strategies to reach them.

This document uses two sets of icons as visual cues for relevant content on specific at-risk groups and specific programme areas/sectors.

The first set pertains to the six following at-risk groups identified in the global literature:[1]

The second set pertains to key sectors of intervention:

Agriculture	
Child protection	
Education	
Health	
Social protection	
Water, sanitation and hygiene (WASH)	

[1] As an intermediary step to developing this guidance, FCDO requested TASC to conduct a global literature review in early 2021 to identify population groups that are most-at-risk of malnutrition, particularly in relation to access to nutrition-specific services and access to nutritious diets.

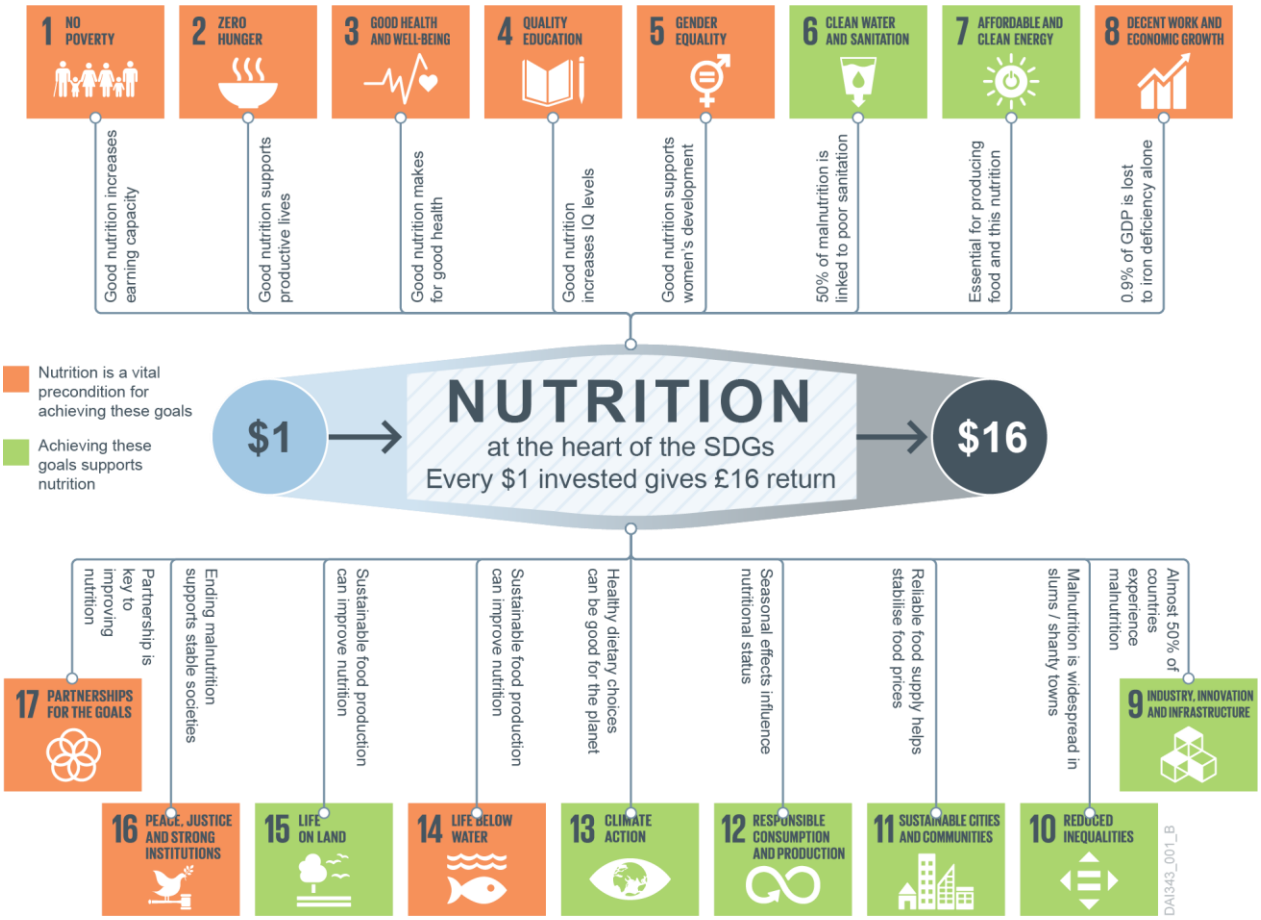
1. Addressing malnutrition in at-risk groups

Nutrition is a basic human right, not a luxury, and is central to sustainable development. According to the 2020 Global Nutrition Report, an estimated 1 in 9 (820 million) people worldwide are currently undernourished, and approximately 113 million people spanning 53 countries experience acute hunger resulting from various hazards and shocks related to climate change, economic crises, conflict and food insecurity (Development Initiatives, 2020). The COVID-19 pandemic has compounded the problem, spurring further malnutrition.

Figure 1 is a recreation of a graphic produced by Sight and Life for the Scaling Up Nutrition (SUN) Movement.[2] It depicts how all of the United Nations (UN) Agenda 2030 Sustainable Development Goals (SDGs) are interrelated with nutrition. Given the multi-dimensional nature of nutrition, every sector can and should contribute to improved nutrition outcomes for all individuals.

Deliberate leveraging of different sectoral programmes to improve nutrition for all, particularly for subpopulations that are highly vulnerable, marginalised and/or underserved by essential services and infrastructure, is key to sustainable development in low and middle-income countries (LMICs).

Figure 1: Nutrition at the heart of sustainable development



Several nutrition-related declarations support the achievement of the SDGs. The Decade of Action on Nutrition 2016–2025 articulated the goal of eliminating all forms of malnutrition by 2025. There are also six World Health Assembly (WHA) Targets to be met by 2025: 1) 40% reduction in the number of children under five years of age who are stunted (a form of chronic malnutrition); 2) 50% reduction in anaemia in women of reproductive age (ages 15-49 years); 3) 30% reduction of low birth weight; 4) No increase in childhood overweight; 5) Increase in the rate of exclusive breastfeeding in the first six months up to at least 50%; and 6) Reduce and maintain childhood wasting (a form of acute malnutrition) to less than 5%.

According to the 2020 Global Nutrition Report, **no country is on track to meet all global nutrition targets by 2025** (Development Initiatives, 2020). Although childhood stunting (a form of chronic [long-term] undernutrition)

[2] Available at https://scalingupnutrition.org/nutrition/nutrition-and-the-sustainable-development-goals/. Accessed on 16 June 2021.

has declined substantially since 2012, an estimated 149 million children were stunted and 49.5 million were wasted (a form of acute malnutrition) in 2018 (Development Initiatives, 2020). Across the globe, adolescent girls (10–19 years) and women of reproductive age (15–49 years) also bear a heavy malnutrition burden. For example, in 2016, 613.2 million women of reproductive age were affected by the hidden hunger of iron-deficiency anaemia. Rates of overweight and obesity are also increasing globally in both children and adults.

The global initiatives all aspire to support country-owned and country-led strategies to address undernutrition in a sustainable manner with emphasis on results, transparency and accountability. These initiatives centre on an inclusive approach, ensuring that everyone has fair access to the resources and services they need to achieve optimal nutrition and development.

The 'Leaving No One Behind' agenda is central to achieving the SDGs. It requires taking an intersectional and transformative approach to policy and programming, tackling the structures and systems that underpin inequality and discrimination, and ensuring that the needs of the poorest and most-vulnerable groups, generated through regular and responsive beneficiary engagement mechanisms, are integrated into all initiatives. In operationalising the concept of 'Leaving No One Behind,' the UN has noted that 'tensions' may arise between investment in universal access efforts that focus on reaching large numbers of individuals in the general population, and specific endeavours related to most-at-risk individuals. The UNSDG (2019) has suggested positioning the choice to pursue targeted action for certain 'left behind' groups—many of which have intersecting needs and vulnerabilities—as a critical success factor in enabling those segments of the population to 'catch up' to the rest of the population, thus supporting universal progress and achievement of national and global targets.

In the SDG era, DFID/FCDO established a commitment to reach 50 million people with nutrition-relevant programmes between 2015 and 2020. DFID achieved and exceeded that target early, reaching 50.6 million women and girls with nutrition programmes between 2015 and 2020. However, **the 2020 Independent Commission for Aid Impact (ICAI) review of DFID's work on nutrition noted that FCDO needs to go further to ensure that the most marginalised populations are reached.** The review yielded several recommendations on strengthening systems for identifying and reaching the most marginalised groups within countries receiving FCDO support, as well as scaling up investments to improve access to nutritious diets.

2. Global evidence on who is most nutritionally at-risk

FCDO programmes often prioritise key nutrition target groups 1) children under the age of five and/or 2) pregnant and lactating women as target beneficiary groups (Branca et al., 2015; Food and Agriculture Organization [FAO], n.d.).[3] However, within most countries, there can be specific factors, characteristics and/or circumstances associated with elevated malnutrition risk pointing to a need to focus on other target groups or to zoom in on sub target groups within the two main nutrition target groups. Maximising FCDO's contributions to nutrition improvement therefore requires a nuanced understanding of who is most nutritionally at risk. The profile of groups who have limited access to nutritious diets and nutrition-related services can be understood in two ways: 1) those groups who have certain socio-economic characteristics or experience certain living conditions *associated with elevated malnutrition risk* and 2) specific population groups that have been *documented to have elevated malnutrition burden or risk* across multiple contexts (*see Annex 2*). This section provides a concise profile of six at-risk groups including children, adolescents and women in deeply rural, remote and/or physically isolated settings; children under five and women from pastoralist/agro-pastoralist and/or nomadic groups; children and adolescents with disabilities; children in urban/ peri-urban slums and informal settlements; children and women from marginalised ethnic, tribal and indigenous groups; and IDPs, refugees and returnees.

Malnutrition risk is multidimensional, and there is often an intersection of factors that result in elevated risk. The above-mentioned at-risk groups are also not necessarily mutually exclusive. For example, children and adolescents with disabilities may reside in any location (rural, urban) or they may be members of pastoral groups. However, it is useful to summarise the body of evidence on nutrition outcomes and determinants in each.

2.1. Overview of key at-risk groups

Table 1 summarises the evidence base on the six at-risk groups highlighted in this chapter. *Refer to Annex 2 for a more detailed review of the global evidence, including references to country-specific findings on nutritionally at-risk groups and drivers of their vulnerability.*

a. Children, adolescents and women in deeply rural, remote and/or physically isolated settings

There is strong evidence, mainly from Southeast Asia and South Asia, of significant disparities in terms stunting (chronic malnutrition), underweight and micronutrient deficiencies between urban populations and communities living in remote or isolated rural areas. In Nepal, for example, seven studies have shown that the prevalence of stunting among children under five is higher in the rural, mountain or hill regions to other areas (Conway et al, 2020). In Lao PDR, levels of stunting in communities living in mountainous areas are more than twice as high as the national average (72.8% and 33%, respectively nationally) and underweight is almost twice as high (50.3% against a national average of 27%) (Boulom et al, 2020). **Women and girls in rural areas are less likely to consume diverse diets** – even compared to other members of their households (Gupta et al, 2020; Thorne-Lyman et al, 2020; Sang-ngoen et al, 2020).

b. Children under five and women from pastoralist/agro-pastoralist and/or nomadic groups

There is strong evidence of higher malnutrition rates amongst pastoralist and nomadic groups compared to other groups. For example, in Ethiopia, the prevalence of acute malnutrition among nomadic children under five in Afar (a largely pastoralist region) has been found to be higher than the national average, and twice as high as districts in southern Ethiopia (Gizaw et al, 2018). A 2014 study across 56 villages in northern Tanzania found that three times as many Maasai children were stunted (57%) as ethnic Meru children (21%), and twice as many were stunted compared to ethnic Sukuma children (32%). More than three times as many Maasai children were also wasted (10%) compared to any other ethnic group (2-3%) (Lawson et al, 2014). In some pastoralist communities, livestock ownership is a key protective factor against Vitamin A, B and zinc inadequacies (Iannotti and Lesorogol, 2014).

[3]This general focus on women and young children is justified due to their sociocultural and economic vulnerability in most societies and their special physiological requirements (e.g., due to higher iron needs, less muscle mass, lower metabolic rates, smaller stomach size in young children), rendering them particularly prone to malnutrition relative to other members of society. Refer to the reference list in Annex 1 for resources that can provide more background information.

c. Children and adolescents with disabilities

The evidence on the links between disability and under-nutrition is mixed, with just over half the studies included in a recent systematic review (nine studies in total; 80% of the included studies from South Asia and 50% of included studies from sub-Saharan Africa) showing a positive association between childhood disability and undernutrition (Hume-Dixon and Kuper, 2018). Those with disabilities are up to three times more likely to be malnourished and twice as likely to die from malnutrition (Kuper and Heydt, 2019). In terms of the state of the evidence, it is useful to note that the broad-ranging nature of disability, and the multiple pathways through which the day-to-day experiences of stigma and discrimination among people with disabilities might affect nutritional outcomes makes it difficult to draw clear conclusions (Jones, 2018). Nonetheless, there is **evidence that children with disabilities are more likely to be stunted, wasted and underweight** (Hume-Dixon and Kuper, 2018; Jahan et al, 2019). There is also evidence that they are more likely to die from malnutrition (Box 1). A 2021 study from rural *India* found that children with disabilities consumed significantly fewer calories and protein than children without disabilities, although they showed no disadvantage in terms of the prevalence of underweight (Jacob et al, 2021). **Few studies disaggregate their findings by gender or look specifically at the risks for adolescent girls and women of childbearing age with disabilities or consider the role of contextual factors such as refugee status, geographical location and economic situation** (Holden and Corby, 2019; Hume-Dixon and Kuper, 2018).

d. Children in urban/ peri-urban slums and informal settlements

Although national-level data often shows lower prevalence rates of different forms of malnutrition in urban areas compared to rural areas, this can mask disparities that emerge when poverty and living conditions are considered (Tuffrey and Espeut, 2015). **Various studies from across different geographical regions have found that children living in urban slums are more likely to experience under-nutrition, particularly stunting outcomes, than children from non-slum areas and sometimes even rural areas** (Goudet et al, 2019; Ernst et al, 2013). The Goudet et al (2019) review cites WHO data from 2016 that, on average, 25.24% of all children living in urban areas LMICs are stunted but argues that while estimates for stunting in slum areas in cities are not available, these are likely to be higher.

BOX 1: **Children with disabilities may face increased risks of mortality from malnutrition**

A 2020 study from Malawi (Lelijveld et al, 2020), which followed children discharged after treatment for severe acute malnutrition (SAM) over a seven-year period, found that children with disabilities were at almost seven times greater risk of dying than those without a disability. Over the longer-term, survivors with disabilities were found to be more stunted, had less catch-up growth, smaller head circumference, weaker hand grip strength and poorer school achievement than survivors without disabilities. Only 11 of the original 60 disabled children in the study were known to have survived seven years later.

e. Children and women from marginalised ethnic, tribal and indigenous groups

There is significant evidence that children and women from ethnic, indigenous and tribal groups experience high rates of stunting and wasting compared to other groups. For example, a 2019 study spanning 48 countries found that children from ethnic minority groups have 2.8 times higher rates of stunting and six times higher rates of wasting than their peers (Rumsby and Richards 2019). This correlation is not limited to undernutrition. For example, ethnicity was also found to be a key determinant of overweight by the Rumbsy and Richards (2019) multi-country study, with some children being 15 times more likely to be overweight than their peers of another ethnicity. **Ethnicity-related inequalities also appear to be increasing in many countries, however there are also examples of countries that have succeeded in narrowing the gaps** (Rumsby and Richards 2019). Intersecting vulnerabilities are also a factor. For example, in *Guatemala* (Gatica-Dominguez, 2019) rural, indigenous children – particularly those in the poorest third in terms of household wealth – were significantly worse than any group, and their nutritional status was similar to that of nonindigenous children 20 years earlier.

f. IDPs, refugees and returnees

In some contexts, refugees and IDPs experience very high prevalence rates of stunting, underweight and wasting (Islam et al, 2018; idowu et al, 2020; Ajakaye and Ibukunolowa, 2020; Kinyoki et al, 2017). Various studies have noted the links between malnutrition and conflict-induced displacement and migration (Iacoella and Tirivayi, 2020; Cumber et al, 2017; Kinyoki et al, 2017). **There is also evidence of a high prevalence of multiple burdens of malnutrition**. For example, high observed rates of both over- and under-nutrition amongst Palestinian refugees are believed to be driven by poverty and food insecurity in camps, and a reliance on poor-quality foods (El Kishawi et al, 2016; Massad et al, 2018). Children in refugee

camps are also highly vulnerable to iron-deficiency anaemia and other micronutrient deficiencies (Ajakaye and Ibukunolowa, 2020; Jamal and Haidar, 2016; Hossain et al, 2016).

Table 1. Description of evidence on key nutritionally at-risk groups by methodology, region and country

	Total number of studies	Cross-sectional survey	Data analysis, i.e. DHS data	Case control	Longitudinal studies	Mixed methods/ qualitative	Systematic review/ meta-. .	Literature review	Regions represented	Main countries featured
Deeply rural, remote and/ or physically isolated settings	**8**	3	2			1	1	1	South Asia; Southeast Asia	Lao PDR; Thailand; Nepal; India; Bangladesh
Urban/ peri-urban slums and informal settlements	**15**	4	2			3	3	3	South Asia; East Africa; Southeast Asia	Bangladesh (3) Kenya (3) India (2) Uganda; Ethiopia; Pakistan; Lao PDR; Thailand; Nepal
Children and adolescents with disabilites	**12**	1	2	2	1	1	2	3	South-Asia; East Africa; Southeast Asia	Bangladesh (2) Kenya; Malawi; India; Vietnam
Pastoralist, agro-pastoralist, nomadic groups	**14**	5	1		1	6	1		East Africa	Ethiopia (4) Kenya (5) Tanzania (3) Somalia, Uganda
Marginalised ethnic, tribal and indigenous groups	**21**	11	4	1		2	3		South Asia; Southeast Asia; Latin America; East Africa; West Africa	India (8) Nepal (3) Vietnam (2) Guatemala (2) Bangladesh, Benin. Ethiopia
IDPs, refugees and returnees	**23**	14	5	1	1	1	1		East Africa; West Africa; Middle East & North Africa; Southeast Asia; South Asia	Ethiopia (4) Nigeria (3) Palestinian Territories (3) Somalia (2) Kenya, Uganda, Jordan, Myanmar, Thailand, Bangladesh, Cameroon

2.2. Key drivers/amplifiers of malnutrition in identified at-risk groups

2.2.1 Poverty

The complex interlinkages between poverty, marginalisation and malnutrition feature strongly in the evidence on at-risk populations, with poverty acting as a key amplifier of their socio-economic disadvantage and risk (Rumsby and Richards, 2019; Conway et al, 2020). Figure 2 depicts some of the intersections between malnutrition and vulnerability. The most obvious way in which poverty creates the conditions that expose people to malnutrition is by limiting their ability to access nutritious diets. However, poverty can also be an access barrier for essential services in different sectors.

A 2016 Vietnam study, which found that 52% of ethnic minority children aged five to 12 were stunted compared to 14% of their peers from other ethnic groups, also found that in 2012 these communities accounted for about two-thirds of the country's poorest 10% (Le et al, 2019)**.** A 2021 study amongst the Satar ethnic group in Jhapa, Nepal found that children under five from households earning less than US$1.90 a day (the global poverty line) were 11 times more likely to develop SAM than those whose households were above the poverty line (Dahal et al, 2021). The study also found that children who were breast fed less than eight times a day had more than twice the risk of developing SAM, with the authors suggesting that low frequency of breastfeeding could be because household poverty compels lactating mothers to work, and the lack of adequate nutrition in women impacts their milk production.

Most of the literature defines the concept of poverty broadly – as encompassing monetary poverty, lack of assets and the multiple deprivations connected to these, including housing and environmental conditions; access to education and health services; and access to safe water and sanitation. In line with the broader evidence, all but one of the studies in a 2017 systematic review on malnutrition in urban slums found that the risk of stunting, wasting, and underweight was higher when the mother's education was less than or equal to six years of primary school education (Goudet et al, 2017).

Among displaced populations, poverty in the form of limited assets is considered a key determinant of reduced food consumption and dietary diversity, as well as increased hunger. In their study of communities displaced by Boko Haram violence in Nigeria, Iacoella and Tirivayi (2019) found that in contexts where there is heightened risk of famine, given their limited physical and social assets, IDPs are more likely to reduce their dietary intake. A 2020 study argues that particularly high stunting levels amongst Palestinian camp residents in Jordan were primarily driven by the low asset base and high unemployment rates (followed by parental education) amongst the 70% of refugees in the poorest two wealth quintiles (Rashad et al, 2020).

2.2.2 Access to services

The places where the poorest and most marginalised groups live are often characterised by substandard housing, poor sanitary conditions, and limited access to quality health services. In urban slums and settlements, these combine with overcrowded conditions, dense populations and a lack of clean drinking water to contribute to increased risk of diseases (e.g., diarrhoea) that contribute to malnutrition (Olack et al 2011; Goudet et al, 2017). Studies from Kenya and Ethiopia have argued that access to safe water, as well as the availability of latrines, and hygiene practices were key factors affecting acute malnutrition (Manners, 2014; Gizaw et al, 2018; Goudet et al, 2016).

Barriers to accessing services particularly affect people with disabilities **and combine with stigma and knowledge and attitude issues amongst caregivers and service providers to exacerbate malnutrition risk**. Preliminary findings from a 2021 scoping review highlight that stigma on the part of service providers (which can manifest in a belief that malnutrition as a result of disability is inevitable) can lead to caregivers being turned away from accessing services. Service providers often do not have the specialist expertise or time to respond to the complex needs of children with disabilities or to provide services from a disability perspective (Kirk, 2021; Groce et al, 2014, cited in Holden and Corby, 2019).

A 2016 qualitative study in Bangladesh showed that while communities were able to identify the symptoms of malnourishment in infants, and valued community-based services that were easier to access, they often felt that these did not have the equipment or skilled staff needed, particularly to treat severely malnourished children. Most community members perceived hospital care – because it is provided by doctors - to be better quality. However, distance, **the cost of transport and treatment, the time cost (particularly for mothers with household and care responsibilities), and perceptions about the severity of illness kept families from seeking care** (Arafat et al, 2016).

2.2.3 Food and agriculture systems

The prevalence of poverty amongst at-risk groups means that how poor people choose, obtain and consume their food are crucial considerations to improve nutrition outcomes in those groups. Urban populations' dependence on the market shapes their diet quality and diversity, and so rises in food prices, and households' coping mechanisms in response can have additional impacts on nutritional outcomes. Households often respond by decreasing dietary quality and relying more on high-carbohydrate staple foods over more-expensive fruits, vegetables and animal source foods – which when eaten alone cannot provide adequate protein, fats and micronutrients, thus increasing the risk of stunting (Meerman and Aphane, 2012).

Studies focussing on tribal, indigenous and pastoralist groups particularly have linked increasing food insecurity to diminishing access to land and the associated impacts on traditional livelihoods and food production (Ghosh and Varekar, 2019). A study amongst pastoralists in Tanzania noted decreased consumption of wild and home cultivated vegetables, which community members suggested was in part due to increased allocation of land for farming which had previously been left untended (Ripkey et al, 2021). Studies amongst tribal populations in India have also found that the increasing use of land for export crops had impacted their production and consumption of nutrient-rich forest foods (Chyne et al, 2017,

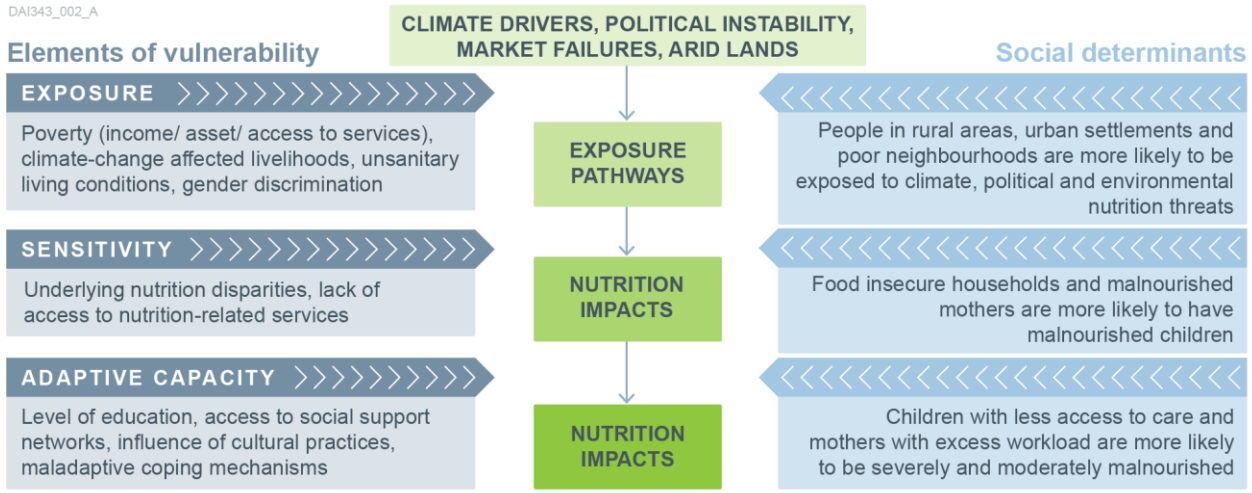
Brown et al, 2014). A study amongst the Chakhesang tribe in India found lower levels of under-nutrition (compared to the national average) and food security, arguing that this could be explained by their use of agrobiodiversity and wild foods, access to which was protected by a unique tribal land ownership and management system (Longvah et al, 2017).

Rural communities and groups that rely on agricultural as a source of food, as well as a source of income for food and non-food expenditures, are vulnerable to seasonal risks and land degradation and find themselves increasingly sliding into food insecurity. Pastoralist diets, for example, become particularly restricted during the dry season especially as men and adolescent boys migrate, leaving women and children with limited access to food (Martin Canavate et al, 2020). In Tanzania, Maasai pastoralists were concentrated in drier villages, which were found to be positively associated with significantly higher levels of stunting (Lawson et al, 2014).

In Lao PDR, remote communities rely on subsistence farming, however production diversity is low, and there is limited access to markets (88% of the study households were located more than 40 km from a market) (Boulom et al, 2020). In Ethiopia, households in more-remote areas have significantly lower food consumption levels, lower dietary diversity and are more food insecure than households nearer to the market (Siftel and Minten, 2017).

Climate change – manifested as increasing droughts, reduced rainfall and unpredictable climate patterns – is impacting agricultural livelihoods and further undermining poor groups' economic capacity and food security. Pastoral communities, for example, have experienced loss of livestock, decreased access to water, reduced access to food and markets, and food price rises, making them even more vulnerable to malnutrition (Manners, 2014, Wayua, 2017).

Figure 2: Intersections between malnutrition and vulnerability



Adapted from: Gamble et al. 2016. The impact of climate change on human health in United States: A scientific assessment

2.2.4 Gender inequality and women's empowerment

There is evidence that women and girls are often at a disadvantage in terms of certain determinants of malnutrition, such as dietary diversity. For example, a study amongst rural adolescents in Bangladesh found that of the five dietary patterns observed, boys were more likely to benefit from the two most diverse, and girls the least diverse (Thorne-Lyman et al, 2020). In Thailand and India, rural women's diets were found to be particularly lacking in iron- and Vitamin A-rich foods (Sang-ngoen et al, 2020; Gupta et al, 2020).

Overall, the evidence on children under five shows that undernutrition outcomes are more common amongst boys than girls, with the differences more significant in some contexts than others (Thurstans et al, 2020). It is worth emphasising that the available evidence focuses heavily on young children, not older children, adolescents or adults. Still, the evidence on urban poor populations shows that, across both sub-Saharan Africa and South Asia, boys are more malnourished and stunted than girls, and more at-risk of being underweight and moderately wasted than girls (Goudet et al, 2017). Boys from tribal

and indigenous communities in India and Nepal have reported to be more at-risk of underweight, wasting and stunting (Mondal et al, 2015; Chyne et al, 2017; Seshadri et al, 2016; van Tuijl, 2021).

However, maternal malnutrition carries the significant risk of low birth weight babies, and there is evidence that large family sizes (and possibly gender discrimination in household allocations of food as a result), as well as cultural food taboos for pregnant women, are associated with maternal malnutrition. A 2018 study with ethnic groups in Ethiopia found 85-95% of women had consumed 'as usual' or 'less than usual' during their most recent pregnancy (Ersino et al, 2018).

Women's workloads, nutritional status and ability to care for young children are also impacted by increased poverty, food price spikes and seasonal food insecurity (Manners, 2014). In Tanzania, pastoralist women supplement diminishing household income by taking on small business activities (Ripkey et al, 2021). With men having to migrate for longer periods of time, women are left to manage the homestead and look after the children – often with limited access to food (Manners, 2014). In Lao PDR, the Boulom et al (2020) study found that households with electric rice mills had better child nutrition outcomes and argues that this was likely because this meant women spent less time milling rice, and were thus able to focus more on maternal and child nutrition and care.

Women in urban settlements are often concentrated in precarious informal sector jobs. A lack of maternity leave and childcare at work, long commutes and working hours affect their ability to breastfeed and prepare food and care for children, especially for those women who do not have family support (Goudet et al, 2012, 2016; Nabunya et al, 2020, Kimani-Murage et al, 2014). A 2020 study amongst informal women workers in Kampala, Uganda found the prevalence of exclusive breastfeeding was 42.8%, below the national prevalence of 66% (Nabunya et al, 2020). A 2012 study in a peri-urban township near Yangon, Myanmar found that levels of exclusive breastfeeding were 8.9% - with complementary foods introduced as early as two weeks (Mohiddin et al, 2012).

3. Reaching nutritionally at-risk groups: guidance according to key elements of the project cycle

3.1. PHASE 1: Scoping, situational analysis and research

3.1.1 Identifying at-risk groups, and their needs and priorities in a specific country/setting

Conducting a scoping exercise or rapid situational analysis is an important first step in identifying and prioritising nutritionally at-risk groups within a specific country or setting (Box 2). This step should also generate context-specific understandings of the ways in which malnutrition occurs, and the ways in which at-risk groups define their own needs, and are themselves responding (or not responding) to those needs. The effectiveness of many of the strategy options described later in this guidance (Section 3.2.3) are contingent upon some degree of buy-in, ownership and behaviour change at a micro/grassroots level. Citizen engagement in all phases of the project cycle is strongly recommended. This will enable members of most-at-risk groups to 1) contribute to the design of innovative solutions to achieve improved nutrition results and 2) provide feedback on implementation and monitoring of those solutions. Additionally, it will be important to identify and understand what existing engagement mechanisms are reaching those most at risk, and how the design and delivery of programme can be adjusted to ensure that beneficiary feedback is effectively sought and responded to, *Refer to FCDO Beneficiary Engagement Smart Guide for insights on how specifically to engage members of at-risk groups.*

BOX 2. Useful resources to guide the identification of (a) who (which population groups) are nutritionally at-risk and b) why they are nutritionally at-risk

1. Leaving No One Behind: A UNSDG Operational Guide for UN Country Teams (United Nations Sustainable Development Group (UNSDG), 2019)
2. Link Nutrition Causal Analysis (NCA) Overview and Guidelines (Action contre la Faim, 2015).
3. Washington Group Question Sets on Disability Statistics, Questions on

In doing so, the aim should be to fully exploit existing data sources that enable the identification of disparities between sub-populations and/or geographic locations.

If it is determined that there are gaps in the knowledge base regarding the above, it might be necessary to explore ways of obtaining supplemental evidence to guide decision making. Table 2 summarises key questions that should be answered to inform programme design/adjustments to existing strategies.

Table 2. Key questions to answer when identifying at-risk groups and factors contributing to their elevated malnutrition risk

1. **Where is malnutrition burden highest?**
   - Which forms of malnutrition?
   - Amongst which subgroups within the at-risk groups? For example:
     - Are there specific malnutrition risks for women? For young girls? For young boys? For adolescent girls? For adolescent boys? For people with disabilities across or within those subgroups?
2. **What are the barriers and bottlenecks to accessing nutrition-related services?**
   - Where (e.g., in particular geographical locations? Where there may be barriers to access?) and when (e.g., year round? during particular times of the year such as the rainy season or lean season?) are those barriers/bottlenecks most prominent?
3. **What are the barriers and bottlenecks in accessing nutritious diets?**
   - Where (e.g., in particular geographical locations?) and when (e.g., year round? during particular times of the year such as the rainy season or lean season?) are those barriers/bottlenecks most prominent?
4. **How do gender relations and social norms affect all of the above?**

➢ *Triangulating and interpreting local evidence on local nutrition dynamics and disparities in being reached with nutrition-specific services*

STEP 1: Carry out a desk-based review of available national evidence (published and unpublished)

In order to identify 1) specific population groups that are most nutritionally at-risk and 2) specific nutritional outcomes that are most salient to the local context (Figure 3). Sources for quantitative evidence can include the following:[4]

- Peer-reviewed literature
- National nutrition or SMART surveys
- Demographic and Health Surveys (DHS)
- Multiple Indicator Cluster Surveys (MICS)
- Censuses (where possible including data disaggregated by disability)
- Vulnerability assessment data such as the data accessible via the World Food Programme (WFP) Vulnerability Analysis and Mapping platform
- Gender and inclusion assessments
- Administrative data from social protection schemes, routine information systems
- Programme monitoring and evaluation (M&E) data from implementing partners
- Geospatial information system (GIS) data from national statistics office, key sectors, early warning systems for food security

Take advantage of any accessible sub-national surveillance data (e.g., from growth monitoring programmes), service statistics (e.g., from health outreach, data on inclusion/exclusion errors within social protection programmes) **and other local, community-level data** (e.g., GIS, community volunteer and extension worker logs/registers) **to 1) identify and profile vulnerable populations and 2) map where they exist in relation to points of service delivery and other resources.**

In examining data contained in the above, do not limit the evidence review to conventional nutritional status indicators (see Section 3.4.1). Several nutritionally at-risk groups may be affected by multidimensional poverty, which has been identified as a key determinant of malnutrition outcomes in the global evidence. Poverty is not defined solely by a lack of money or income; it may manifest as deprivations or disadvantages related to various rights such as access to basic infrastructure (e.g., safe drinking water and sanitation, adequate housing), as well as access to essential services such as health care, education and protection. Because all of the above can contribution to the risk of malnutrition, identifying disparities in data related to the above dimensions can also aid in identifying which population groups are most nutritionally at-risk.

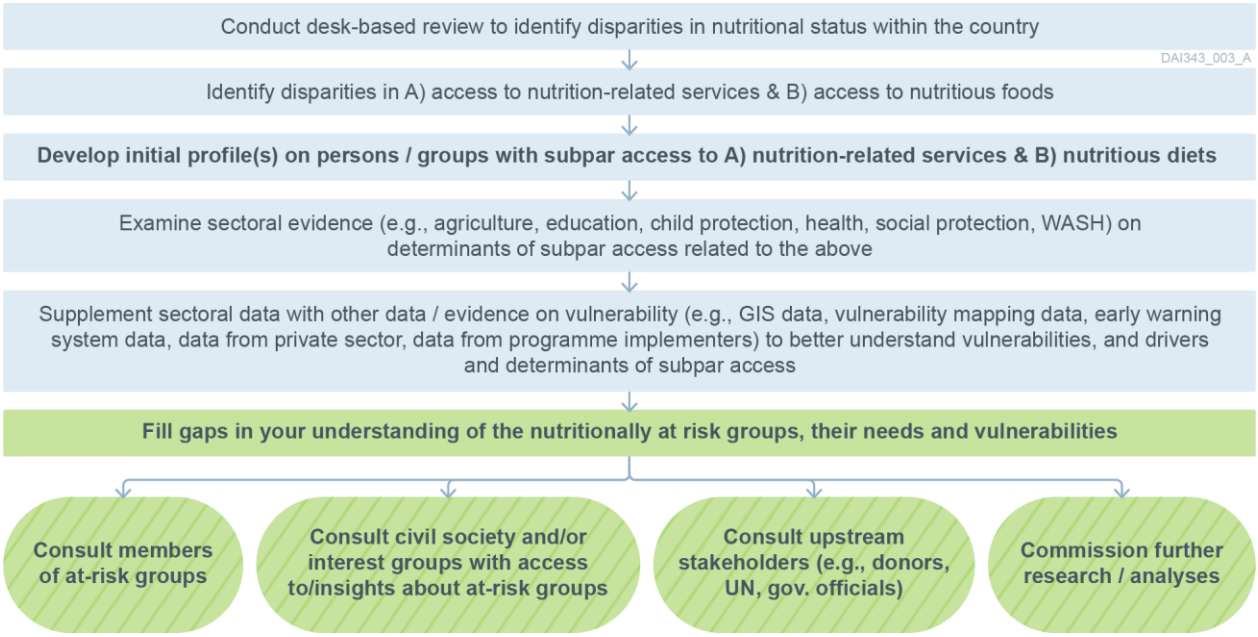
Evidence on **who is either most vulnerable to or most-affected by hazards or phenomena** such as those listed below can also facilitate the identification of nutritionally at-risk groups. Insights related to the following may not exist solely within conventional nutrition literature, so it is important to consider an array of issues affecting the country context (e.g., climate change, food systems, human rights).

- Climate hazards (e.g., drought, flooding or other extreme weather events)
- Food insecurity
- Armed conflict
- Socio-political unrest or instability
- Disease outbreaks
- Population displacement
- Human rights abuses (e.g., exploitation, abuse, various forms of violence)
- Economic crises

Qualitative information is equally important in identifying at-risk groups, better understanding the 'why' behind nutrition vulnerability and how different determinants of elevated malnutrition risk intersect to shape vulnerability. Such evidence can be collected from sources such as: 1) programme- or site-specific qualitative/ ethnographic studies, 2) anecdotal reports from agencies and stakeholders working with at-risk groups and/or 3) mixed-methods/qualitative programme M&E data.

[4] URLs for 1) DHS: https://www.dhsprogram.com; 2) MICS: https://mics.unicef.org; 3) WFP VAM: https://dataviz.vam.wfp.org

Figure 3: identifying and understanding nutritionally at-risk groups



STEP 2: Identify critical evidence gaps.

The very nature of vulnerable, highly marginalised groups is they may be largely un- or under-documented. Where there is no disaggregated data to identify who is most at-risk of malnutrition, it will be necessary to explore ways to efficiently gather information to inform FCDO decision making. FCDO can then decide whether to commission research to fill those gaps and/or provide technical assistance (TA) to government or implementing partners to gather evidence and/or further analyse existing data sources through a nutrition equity lens.

➢ ***Gathering additional intel or evidence to quickly fill data gaps***

There are multiple means of gathering additional evidence:

1. Conduct key informant interviews or expert consultations: It is advisable to leverage existing multi-stakeholder platforms and forums to quickly gather information. Illustrative platforms include national or sub-national technical working groups, SDG task forces or sub-committees on "Leaving No One Behind," human rights committees and SUN multi-stakeholder platforms such as the country's SUN Civil Society Alliance (to engage local and international nongovernmental organisations [NGOs]) and other relevant interest/advocacy groups). Strive to gather diverse input from stakeholders in different sectors. Consultation with bilateral and international organisations (including UN agencies) can be achieved through existing channels such as Donor Groups or Development Partner Forums.
2. Leverage data from the private sector: With many countries prioritising digital and financial inclusion as part of their national development agendas, it may be possible to access relevant private-sector information/evidence to identify nutritionally at-risk groups being left behind. For example:
    - from mobile service providers (e.g., data on network coverage and usage for different profiles of users and/or geographical locations within the country)
    - from financial institutions (e.g., data on programmes and profiles of recipients for special initiatives to promote savings groups, access to credit and other forms of economic strengthening)
    - from agricultural firms, infrastructure firms, and/or food and beverage producers—all of which may have relevant information regarding targeting of resources for food production, foods prices and distribution in different locations, and/or seasonality issues
3. Pursue participatory, qualitative data gathering: Focus group discussions or other community-based qualitative data collection (e.g., community vulnerability mapping) can be explored as opportunities to directly engage members of at-risk groups. Use disaggregated data on where malnutrition burden is

highest to help identify entry points such as programme implementers and local authorities to better engage and understand who is most nutritionally at-risk.

4. In humanitarian settings, leverage mechanisms that already exist to gather, synthesise and share information on vulnerabilities and affected populations: Across several countries, the UN Office for the Coordination of Humanitarian Affairs (OCHA) and humanitarian partners often have 'tried-and-true' methods of gathering real-time evidence on where and who within a particular country are affected by specific emergencies. A variety of Humanitarian Reports are available at:

   https://www.unocha.org/media-centre/humanitarian-reports, and up-to-date Situation Reports are available at https://reports.unocha.org. In addition to examining the above, liaising with government and humanitarian partners through the humanitarian cluster system can facilitate access to information on the size, distribution, and highest-priority needs and vulnerabilities of most-affected/most-at-risk groups.

3.1.2 Examining the enabling environment and other critical factors in the country context

In order to maximise the contributions of FCDO-supported programmes in reaching and supporting nutritionally at-risk groups, it is crucial to take stock of the enabling environment at the national level *(Box 3)***.** The enabling environment is particularly important because the needs of the most-at-risk groups within a country can become deprioritised or treated as an afterthought by some decision makers and stakeholders. Because of the additional time and resources often needed to reach at-risk groups, specific strategies to better support at-risk groups are often not reflected in sectoral programme budgets. Without specific attention to at-risk groups in action plans, M&E frameworks that include ways to engage beneficiaries, solicit and respond to their feedback, and system strengthening efforts (e.g., development, procurement and/or distribution of vital resources such as human resources, infrastructure and commodities), the impact of programme investments can be limited.

BOX 3. What is an 'enabling environment?'

When improving nutrition, an enabling environment usually relates to governance, policies, programmes and investments.

Common challenges relate to the governance of national food systems (not participatory, responsive and accountable); the extent to which cross-sector policies and programmes are evidence based and effective in reaching the most-vulnerable households; and the extent to which governments and partners are committing and operationalising the financial resources needed to transform food systems.

As such, factors such as the political economy of the food and agriculture system, the influence of the private sector, social and gender norms, and the participation and inclusion of vulnerable groups in decision-making are important to consider as key aspects of the enabling environment.

Table 3 presents a checklist of key considerations related to the enabling environment and other factors, which can identify gaps and opportunities within the country context. FCDO's in-country engagement and programming approach and strategies should be based on a robust political economy analysis of the current institutional structures and processes that shape nutrition policy and programming for at-risk groups, and identification of the key entry points and opportunities to support greater responsiveness to their needs. Some of the questions that should be included in this analysis are provided in the checklist below.

Table 3. Checklist on the enabling environment to address the nutritional needs of most-at-risk groups

KEY CONSIDERATION	Tick (✓) column: YES	NO	NA
Governance, Coordination and Participation			
1. Is there a decentralised/devolved system of national governance?			
2. Does the country have active multi-stakeholder bodies or platforms that have an equity mandate?			
3. Do members of identified at-risk groups participate in the above bodies/platforms?			
4. Do members of a) identified at-risk groups and/or b) interest groups/civil society organisations advocating for the interests of those at-risk groups participate in national-level nutrition governance and multi-sectoral coordination processes?			
5. Do members of identified at-risk groups participate in sub-national nutrition governance and coordination processes?			
6. Does FCDO provide support (financial or in-kind) to any of the above platforms or processes?			
7. Does FCDO participate/convene any of the above platforms or processes?			
8. Is there evidence of efforts to 'mainstream' nutrition across key government line ministries?			
Policy/Legislative Environment			
9. Are there policies/legal frameworks that reference the nutritionally at-risk groups in your country?			
a. →**IF YES**: Do those policies/legislation address non-discrimination, gender, disability. social inclusion and/or equity factors that contribute to nutrition vulnerability?			
b. → **IF NO**: Are there any sector-specific policies/legislation that promote universal access (e.g., universal healthcare, inclusive education)?			
10. Are the above fully implemented?			
11. Is the implementation of the above policies/legislation adequately financed?			
12. Are the above policies/legislation adequately enforced?			
13. Is there a clear legal framework for private-sector actors to contribute to the elimination of all forms of malnutrition (including increased access to nutritious diets)?			
Evidence for Action			
14. Are identified at-risk groups included (sampled, consulted) in nutrition data efforts (e.g., surveys, nutrition surveillance, nutrition information systems)?			
15. Are available data disaggregated according to characteristics such as a) gender, b) ethnicity, c) social identity, d) disability, e) ecological zones (e.g., agrarian vs. pastoralist and arid/semi-arid)?			
16. Does FCDO support evidence generation efforts such as MICS, national nutrition surveys, vulnerability assessments and/or early warning systems?			
17. Do FCDO staff participate in inter-agency working groups or other platforms to strengthen nutrition data systems and/or administrative data sources in specific sectors?			
Capacity			
18. Does the government sector have resources (human, commodity, infrastructural) deployed to implement accessible programmes for identified most-at-risk groups?			
19. Are there civil society organisations with direct access to identified at-risk groups?			
20. Are programme beneficiaries included in local capacity-building efforts (consulted when identifying capacity-building gaps, targeted as recipients of skills-building/capacity building)?			

3.1.3 Assessing the stakeholder landscape

Improving nutritional outcomes amongst most-at-risk groups requires coordination and institutional arrangements between a broad range of stakeholders, including central and sub-national government agencies, donor agencies, UN agencies, academia, civil society (local and international) and a diverse set of community stakeholders (e.g., women, adolescents and youth from the identified at-risk groups; health and education service providers; and gatekeepers and change leaders such as religious leaders). A stakeholder analysis is thus a key step for nutrition given the multi-sector effort that is required, the need to understand the context of specific sectors and the relationships between them, and the imperatives of developing feasible objectives and identifying strategic entry points. In any given context, **FCDO advisers should work with key country partners to map key nutrition stakeholders – with a focus on local actors who will know the ways in which national-level political economy manifests on the ground** – in order to understand their knowledge, capacity and interests in addressing the needs of the most-vulnerable groups, and their resources and influence in doing so.

The stakeholder analysis matrix in *Figure 4* can be used to strategize on identifying and engaging stakeholders to participate in decision making and action regarding at-risk groups. **In assessing the stakeholder landscape, an assumption should <u>not</u> be made that all in-country actors are committed to the inclusion of vulnerable groups, particularly when there is significant discrimination and stigma.** Those actors/stakeholders may often replicate the same unequal power relationships and exclusionary behaviours that are seen in society at large.

Figure 4: Different levels of stakeholder engagement

To support transformative, sustainable improvements for the most at-risk groups, it is important to promote country ownership in inclusive nutrition-specific and nutrition-sensitive efforts. Although **development partners such as FCDO have a useful role to play in promoting country ownership and coordinated, evidence-informed approaches**, it is important to make a strong business case for local decision makers—particularly with competing demands (e.g., COVID-19 mitigation) for scarce resources—and to **support national and sub-national government officials to lead in the planning, coordination, facilitation and monitoring of interventions** to reach those who are most nutritionally at-risk.

3.2 PHASE 2: Design—choosing the right strategies

This section provides guidance on how to 'unpack' issues such as those identified in the previous phase, as well as how to align identified needs with strategies proven to be effective in different contexts and with different at-risk groups.

There are different pathways and strategies to improve nutrition outcomes in most-at-risk groups. The scoping/situation analysis conducted in Phase 1 will help to answer the following key questions to:

1. What **elements of the nutrition causal pathway need to be prioritised** to improve nutrition-related outcomes in identified at-risk groups?
2. What **opportunities or entry points exist within FCDO-supported programmes** to address the above?

➔ *TIP: Examine the current reach/coverage of nutritionally at-risk groups within the programme*

3. How specifically **can existing programmes address the identified nutritional needs** of at-risk groups?

   ➔ *TIP: Consider options for **programme design tweaks and/or specific strategies** that can be implemented within the program to better reach and meet the nutritional needs of most-at-risk groups?*

4. **How feasible versus impactful are those options** be in our local operating environment?
5. When conceptualizing and designing programmes, what steps can be taken to ensure that beneficiary engagement mechanisms are planned for, resourced and integrated throughout the entire programme cycle (including M&E)?

BOX 4. Nutrition sensitive social protection

For further exploration of nutrition-sensitive strategy options through social protection programmes, please refer to the recent FCDO guidance, "How to promote better nutrition through social assistance – guidance" (July 2021).

As a reminder, designing strategies for at-risk groups must be rooted in an understanding of what those groups want – not just what decision makers think they need. Engagement of at-risk groups in Phase 1 (e.g., through qualitative data gathering) is essential to designing strategies and interventions that have high prospects of viability and acceptability with those groups, in addition to effectiveness in improving particular nutritional outcomes (*Refer to FCDO Guidance on Citizen Engagement for insights on how to engage members of at-risk groups.*).

3.2.1 What elements of the nutrition causal pathway to address?

The nutrition causal pathway is the combination and sequencing of factors that are identified to cause or contribute to malnutrition. Different sets of factors may be exist in determining access to a) nutrition services (both nutrition-specific and nutrition sensitive [Box 5]) and b) nutritious diets. As described in Section 2, factors such as poverty, women's empowerment and systemic marginalisation are usually root causes of nutrition vulnerability in most-at-risk groups (*Figure 5*). As such, those factors usually impact other factors or elements within the causal pathway.

Figure 5 highlights key questions - labelled alphabetically (A through K) - to help prioritise what elements of the nutrition causal pathway to address. Follow this alphabetical order in exploring the questions. Items A, B, and C are key questions to consider in relation to root causes of both suboptimal access to nutrition services and suboptimal access to nutritious diets. Items D, E and F are key questions to consider in relation to access to nutrition services. Items G through K examine key questions related to access to nutritious diets. Finally, the graphic refers to broad strategy options (later presented in Table 6) for addressing priority elements within the nutrition causal pathway.

BOX 5. Differentiating between "Nutrition-sensitive" and "Nutrition-specific"

Nutrition-specific interventions address immediate determinants of nutrition and development such as adequate food and nutrient intake, feeding practices, caregiving and parenting practices, and low burden of infectious diseases.

Nutrition-sensitive interventions address underlying determinants of nutrition and development such as food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment—and incorporate specific nutrition goals and actions

SOURCE: Ruel and Alderman, 2013

3.2.2 What opportunities or entry points within FCDO programmes?

Several sectors—agriculture, child protection, social protection, education, health and WASH–have the potential to serve as platforms for addressing the nutritional needs of at-risk groups. In identifying entry points and strategies, a multi-stage evidence assessment process was used to assemble a quality set of reports, documentation and articles (see Annex 3). Table 4 provides illustrations of nutrition-related programming across different sectors to address the nutritional needs of specific at-risk groups. The table uses a colour scheme to provide a general description of nutrition-related evidence related to each sector/entry point (Box 6). **The interventions highlighted are intended to demonstrate the diversity of programme options and should not be interpreted as a definitive list of the most-effective interventions in different sectors**.

BOX 6. The Evidence Base on Different Sectors as Entry Points for Nutrition Improvement in At-Risk Groups

- **LITTLE/NO EVIDENCE AVAILABLE** (denoted by red colour in Table 4): Applies when limited evidence/literature was identified on how programming in that sector contributes to improved nutrition outcomes
- **EVIDENCE ON UNDERLYING NUTRITION DETERMINANTS** (denoted by yellow colour in Table 4): Applies when there is a body of evidence/literature from the sector on its contributions to improvements in underlying determinants of nutrition (see Box 5)
- **EVIDENCE ON IMMEDIATE NUTRITION DETERMINANTS** (denoted by green colour in Table 4): Applies when there is a body of evidence/literature from the sector on its contributions to improvements in immediate determinants of nutrition (see Box 5)

In identifying opportunities to integrate or enhance existing programmes to better address the nutritional needs of at-risk groups, it will be important to **consider 1) the budget and capacity of FCDO advisers and implementing partners to implement the programme modifications and 2) the appetite for establishing accountability frameworks for different programmes/sectors to contribute to nutrition objectives/targets.**

Being forward thinking, it will also be important to **integrate nutrition into FCDO's future business cases**, thus setting the stage for nutrition-sensitive programme implementation in different domains/sectors.

3.2.3 What steps can be taken to ensure beneficiary engagement mechanisms are planned for?

Engaging beneficiaries during programme design can improve information about the contexts, risks and preferences and ensure the programme goals are closely aligned with their needs. At the design stage, it is important to identify what beneficiary engagement methods will be used during programme delivery, and that these methods are adequately budgeted for. Additionally, in order to respond to beneficiary input or feedback, teams can build flexibility into programme design. This will require programmes to take an adaptive approach, including, but not limited to shifting resources (including those for contracts and procurement) or modifying approaches. Lastly, during programme design, it should be determined how beneficiary engagement will be integrated into the design of monitoring and evaluation systems. This can help ensure that information is obtained on aspects of the programme that are important to them and add value to their lives. Table 4. Examples of leveraging existing programmes in different sectors to improve nutrition outcomes in the most-at-risk groups

CODING SCHEME: Little/no evidence | Evidence on underlying nutrition determinants | Evidence on immediate nutrition determinants

SECTOR	*Improving access to nutrition services*	*Improving access to nutritious diets*	ILLUSTRATIVE "REAL-WORLD" PROGRAMME EXAMPLE FROM THE SECTOR
Agriculture			**FOR PASTORALISTS AND NOMADIC GROUPS:** In Tanzania (Galiè et al, 2019), 'daily market hubs' were created for small-scale milk producers among pastoralist groups to enhance access to inputs, services and markets for dairy intensification, with the aim of improving livelihoods and food security. Women's control over agricultural assets and income was highlighted as a means of increasing women's ability to either produce or purchase diverse, nutritious foods.
Child Protection			**FOR CHILDREN WITH DISABILITIES**: In Ghana (Zuurmond et al, 2018), an 11-month participatory training programme was offered to caregivers of children with disabilities using a parent group model. Although there were no significant improvements in nutritional status measures such as stunting and wasting during the evaluation period, there were significant improvements in caregivers' knowledge and confidence in caring for their child, including some aspects of child feeding practices. There was also a statistically significant reduction in recent illness episodes (past two weeks) in the children.
Education			**FOR ETHNIC MINORITIES AND INDIGENOUS GROUPS:** In India (Devara and Deshmukh, 2017), a school feeding programme was introduced in government tribal ashram schools in two predominantly tribal districts. The programme introduced the "Centralized Kitchen" concept, which has three principles, ensuring: 1) nutritious meals consisting of both macro- and micronutrients, thus meeting students' recommended daily allowance; 2) improved quality, quantity and frequency of meals; and 3) hygiene and clean cooking environment. A trained nutritionist consulted students on their food preferences when developing meal plans. There was also strict quality control of both the kitchen and the supplies.
Health			**FOR IDPs and REFUGEES:** An intervention along the Thailand-Myanmar border (Carrara et al, 2017) entailed leveraging micronutrient supplementation of pregnant women at antenatal care clinics in refugee camps to also distribute new rations of micronutrient-fortified flour (MFF), with the aim of improving new-born outcomes such as preterm birth and 'small for gestational age.' Good nutrition in pregnancy remained a major challenge for refugees but longer exposure to the new refugee food ration was associated with reduced prevalence of small for gestational age.
Social Protection			**IN HUMANITARIAN SCENARIOS, WITH IDPs and REFUGEES**: In several fragile and conflict-affected settings (FCAS), cash transfers to households who have a child in SAM treatment showed promise in speeding up the child's recovery (Grellety et al., 2017). As highlighted in the FCDO Guidance on Social Protection and Nutrition, there are a few studies in the general body of literature (FCAS and non-FCAS) that have documented the effectiveness of cash transfers in increasing access to

CODING SCHEME: Little/no evidence | Evidence on underlying nutrition determinants | Evidence on immediate nutrition determinants

SECTOR	*Improving access to nutrition services*	*Improving access to nutritious diets*	ILLUSTRATIVE "REAL-WORLD" PROGRAMME EXAMPLE FROM THE SECTOR
			nutrition-related information, preventative health practices and/or health care seeking.[5] There is also a body of evidence on how cash transfers have been linked to increased food expenditures and quantity of food consumed at the household level.[6]
WASH			WASH is crucial from a hygiene and disease prevention perspective—two factors that are part of the nutrition causal pathway. However, when specifically examining strategies to increase access to nutrition services and increase access to nutritious diets, the WASH-related strategies identified when preparing this guidance were implemented as part of a multi-sectoral programme. For example, a multi-country scoping review of nutrition interventions for at-risk children living in URBAN SLUMS (Goudet et al. 2017) found that WASH was one of the key determinants of acute and chronic malnutrition in that population. In addition, 'Cash-Plus' models that include a WASH component have shown promise in **URBAN POOR AND HUMANITARIAN SETTINGS** (Grijalva et al., 2018).

BOX 7. The links between women's empowerment and child nutrition

A 2019 systematic review of the literature on the links between women's empowerment and child nutrition found that the evidence is inconclusive – largely because of inconsistencies in methodology, the large numbers of indicators, and associations with child nutrition that have been tested (200 unique indicators tested in 1316 methodological across 62 studies), and a notable lack of attention to indicators for time resource allocation, reproductive decisions, and men's engagement in child care and nutrition (Santoso et al, 2019).

The individual studies also show that evidence on the links between women's empowerment and nutrition depends on context and the aspects of women's empowerment in question. Some studies, including one with pastoral communities in Tanzania and another with rural communities in Ghana have found that women's control over assets and income is positively associated with dietary diversity, and improved IYCF practices, but less so with nutritional outcomes. A study in rural Zimbabwe found that the children of women who reported greater decision-making autonomy, more egalitarian gender attitudes, fewer depressive symptoms, and higher levels of social support during pregnancy had better linear growth by 18 months. Each unit increase in decision-making autonomy was significantly associated with 6% reduced odds of having a stunted child.

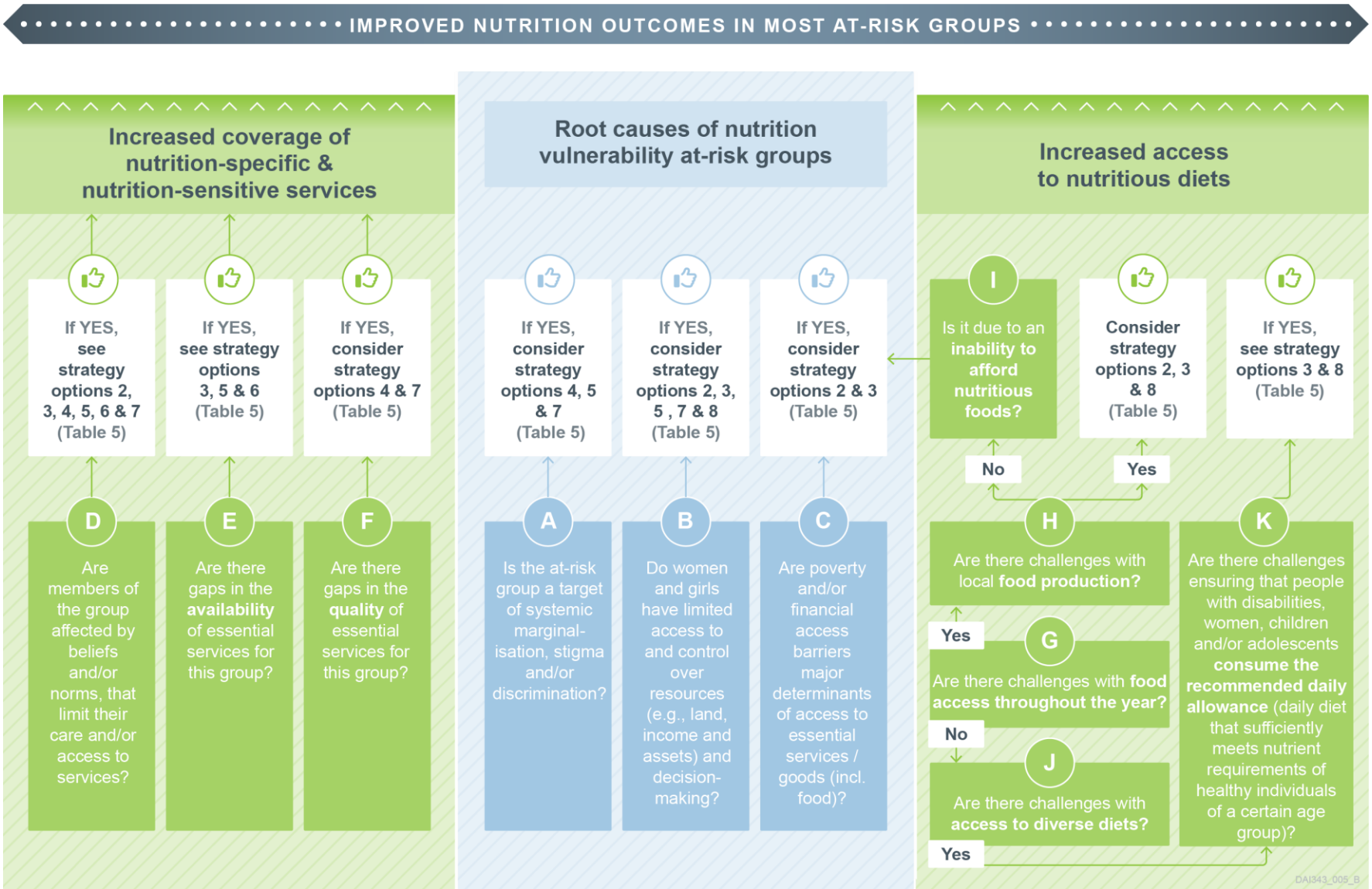
Studies from the broader literature have found that women's empowerment supported reductions in wasting (Burkina Faso: spousal communication, purchasing decisions, healthcare decisions, family planning decisions); reductions in wasting and stunting (East Africa regional: Ethiopia, Kenya, Rwanda, Tanzania, and Uganda/ assets, attitudes about intimate partner violence, and influence in household decision making) and reductions in maternal undernutrition and low birth weight (Bangladesh/ education, access to decision making, economic contribution and access, attitudes towards domestic violence, and mobility). The regional study found that the reductions in child wasting and stunting were mediated through women's BMI, suggesting that the pathway to improvements in children's nutrition is through women's ability to take care better care of themselves. All of the studies found that increased household wealth significantly amplified the positive links between women's empowerment and maternal and child nutrition.

Source: Galie et al, 2019; Heckert et al, 2019; Jones et al, 2019; Kabir et al, 2020; Malapit and Quisumbing, 2015; Tome et al, 2021

[5] As cited in the FCDO Guidance entitled "How to promote better nutrition through social assistance – guidance" (June 2021). Evidence justification: de Groot et al., 2015; Le Port et al., 2019; Durr, 2020; de Groot et al., 2015; Pega et al., 2017,

[6] As cited in the FCDO Guidance entitled "How to promote better nutrition through social assistance – guidance" (June 2021). Evidence justification: Hi-drobo et al., 2017; de Groot et al., 2015; Fenn, 2017; Manley et al.; 2013, Bastagli et al., 2016; Garcia 2012; Kusuma 2017).

Figure 5. Guiding questions to determine key elements of the nutrition causal pathway to address, with guidance on strategy options (as listed in Table 6)



3.2.4 What strategies are effective?

After identifying a shortlist of most-at-risk groups (see Section 2), TASC conducted a rapid review of the global literature to identify effective modalities and broad strategies that are candidates for reaching and supporting the nutritional needs of most-at-risk groups. Annex 3 presents summary matrices on effective strategies, according to at-risk group.

The following are general modalities employed within effective strategies:

- **Social and behaviour change (SBC) interventions**, e.g., for stigma reduction (15 studies/publications)
- **Women's empowerment interventions** such as targeted social transfers and various forms of economic strengthening and linkages to markets (13 studies/publications)
- **Parenting or care group models** (7 studies/publications)
- **Cash transfers** (9 studies/publications)
- **Food transfers** of different types (10 studies/publications)
- **Sensitisation and/or capacity building of service providers** (e.g., health workers, community volunteers) to better serve members of at-risk groups (6 studies/publications)
- **Strengthening linkages/referrals to various services or markets** (7 studies/publications)
- Use of **mobile phone technology** (4 studies/publications)
- Disability-inclusive Strategies

Excluding food transfers, efforts to promote access to nutritious diets among at-risk groups tend to focus on 1) behavioural aspects (e.g., optimal feeding and food consumption practices) or 2) **using cash transfers to increase food expenditure**, rather than on addressing broader food system/food environment issues. However, there is a small body of evidence spanning several geographical regions on the effectiveness of nutrition-sensitive micro-interventions (see Option 2, Table 6) to improve local food production (e.g., through community gardens, animal husbandry, milk production) and value-addition activities.[7] Also, one programme employed mobile phones to help members of a pastoralist community in Northern Kenya communicate and coordinate amongst themselves in purchasing nutrient-dense foods (Parlasca et al., 2019).

Table 5 summarises eight broad strategy options and key lessons learnt from the literature. The first strategy option relates to strategic TA provision on the part of FCDO, whereas strategies 2 through 8 are more programmatic in nature.

One important feature of successful programmatic strategies is the existence of intersectoral and multidisciplinary partners, with strong collaboration between government, NGOs and private sector (Kuhnlein, 2013). As reflected in Annex 3, the literature review included several systematic reviews with multi-country purviews, which provided a useful synthesis on diverse country experiences and learning. In addition, the TASC team conducted a two-stage process in selecting studies/publications, taking into account quality of evidence (in particular, the rigor with which effectiveness of particular strategies was evaluated).

In addition, **several FCDO-supported countries are characterised by complex but predictable risk environments**. Emergencies such as climate-related phenomena (e.g., droughts, floods), food crises, scarcity of natural resources (e.g., arable land, water), conflict, displacement, economic/financial crises and/or disease outbreaks/epidemics are becoming more-frequent and more-intense in nature.

Many of the nutritionally at-risk groups highlighted in this guidance are population groups that are most vulnerable to or most affected by the above-mentioned emergencies (Boxes 8 and 9; UNHCR, 2021; Cook, 2020; Hammer et al., 2018). It is therefore important to consider 1) the shock-responsiveness of FCDO-supported strategies and interventions, and 2) how investing in strategies to better reach nutritionally at-risk groups actually bodes well for disaster preparedness and resilience building, in general (UNICEF, 2019). Advancing equity in programming and building local capacity to reduce underlying vulnerabilities, not just respond to acute needs, are essential to risk-informed, shock-responsive programming (UNICEF, 2018a). The COVID-19 pandemic is spurring further global, regional and country dialogue regarding nutrition in emergencies, and shining a light on deficiencies in three systems—food,

[7] Pradhan et al., 2021; Jamaluddine et al., 2020; Kimiywe et al., 2020; Sesay et al., 2018; Bernet et al., 2018

social protection and health—that necessitate a shock-responsive approach (Lartey and Oenema, 2020). The eight strategy options highlighted on the following pages (Table 5) are consistent with that philosophy.

Three general recommendations to a shock-responsive approach when addressing the nutritional needs of at-risk groups are as follows: 1) align strategies with other efforts that address core drivers of vulnerability among most-affected/most-at-risk populations; 2) leverage trusted, reliable channels of engagement and/or communication that extend the reach of information and interventions to at-risk groups; and 3) explore how digital technology can be used to mitigate physical access barriers. UNICEF (2018b) underscores that preventing malnutrition before it starts is central to planning and emergency preparedness.

BOX 8: The Impacts of COVID-19

A 2021 IOM-WFP report has found that COVID 19-related disruptions to people's mobility, livelihoods and public health, and the large-scale return and reintegration of **migrants** to remittance-reliant countries in the Horn of Africa has exacerbated the vulnerability of **displaced people** and already food insecure communities. By October 2020, 9 In every 10 **refugee households** in Uganda, for example, reported a decline or loss in income following the lockdown in the Kampala and southwestern regions. Remittances – refugees' other key source of income – also declined as many migrant workers were repatriated by their host countries. Humanitarian assistance thus remained key to survival, however reduced funding for humanitarian operations led to cuts in food rations for refugee populations in Djibouti, Ethiopia, Kenya, Rwanda, South Sudan and Uganda.

The study found that 54 million people were acutely food insecure in the region in 2020, including households in rural food insecure areas, as well as food insecure urban poor populations that were particularly affected by the pandemic. In 2020, ten countries, including Sudan, Ethiopia and South Sudan were considered to be experiencing the worst food crises globally - with 9.6 million, 8.6 million and 6.5 million people respectively acutely food insecure.

SOURCE: IOM-WFP, Life Amidst a Pandemic: Hunger, Migration and Displacement in the East and Horn of Africa, 2021

BOX 9. Nutrition in Emergencies—Somalia Snapshot

Somalia faces a plethora of threats such as sociopolitical instability, floods, desert locust plague and COVID 19. This has prompted FAO to reimagine how it supports at-risk groups such as **pastoralists, farmers and fisherfolk** in the country. Central to this reimagined approach is the use of interactive radio to train and support farmers on good agricultural practices, nutrition and low-cost techniques to mitigate water scarcity. Evaluation data are not available. However, anecdotal evidence shows that, given low levels of literacy and the extensive reach of local radio throughout the country, radio training programmes are reaching vulnerable, hard-to-reach groups and helping them diversify crops.

SOURCE: http://www.fao.org/emergencies/fao-in-action/stories/stories-detail/en/c/1366255/. Published 23/12/2020

Table 5. Key strategy options identified to address the nutritional needs of most-at-risk groups

SYMBOL KEY FOR AT-RISK GROUPS:	**Deeply rural/ remote:**		**Urban poor:**		**People with disabilities:**		**Pastoralist/ nomad:**		**Ethnic minority/ indigenous:**		**IDP/ refugee:**	
SYMBOL KEY FOR SECTORS:	**Agri-culture:**		**Child prot.**		**Educ.**		**Health**		**Social prot.**		**WASH:**	

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	**EVIDENCE ON EFFECTIVENESS FOR:**					
						
1. Provide TA support to address the gaps and leverage the opportunities identified via the scoping and situational analysis (See Section 3.1: Phase 1). *APPLICABLE TO ALL SECTORS:*      FCDO can provide TA in the following: a. Review and revision of national multisectoral nutrition plans to include action items in support of leaving no one behind; b. Given sensitivities and marginalisation associated with some groups, updating sectoral guidelines/protocols so that they are responsive to identifying, engaging and supporting the most at-risk; c. Strengthening the nutrition data value chain (e.g., data collection, collation, analysis and use) to ensure that it is sensitive to the specific profile and needs of most-at-risk groups and disaggregated; d. Enhancing accountability and feedback systems to ensure that citizens from vulnerable groups and their representatives are able to voice their needs and hold government and its partners to account.	✓	✓	✓	✓	✓	✓

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:	Urban poor:	People with disabilities:	Pastoralist/ nomad:	Ethnic minority/ indigenous:	IDP/ refugee:
SYMBOL KEY FOR SECTORS:	Agri-culture:	Child prot.	Educ.	Health	Social prot.	WASH:

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
2. Refined targeting and conditionalities using a '<u>Cash-plus</u>' social assistance approach to enhance **<u>women's empowerment</u>** and **<u>greater inclusion/ participation</u>** of **<u>vulnerable groups</u>** to prevent and treat malnutrition *SECTORS*: **<u>ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES</u>**: (a) Some form of social transfer (cash and/or in-kind [e.g., animal transfer such as cattle or poultry; food]); (b) livelihoods training; (c) life-skills training; (d) strengthening of referral mechanisms between different entry points (e.g., health, agriculture, social protection); (e) SBC interventions to promote health care seeking and improved dietary practices; (f) WASH strengthening (sanitation infrastructure, hygiene practices, access to improved water sources) **<u>KEY LESSONS LEARNT</u>:** • Particular attention is required to 1) *increasing* women's access to/control over income and assets through different economic strengthening/livelihoods interventions (e.g., homestead gardens, group-based income generating activities, facilitating access to credit, conditional cash transfers) (Blumberg, R. L. et al, 2013 [global]) -AND- 2) *maintaining* women's control over assets (e.g., as women's income generating activities become more successful they can often be taken over by men; Galie et al 2019 [Tanzania]). • While cash transfers can contribute to improved household food expenditure, meal frequency and dietary diversity (Chakrabarti et al. 2020 [Zambia]; Dietrich & Schmerzeck, 2019 [Kenya]; Tonguet-Papucci et al, 2017 [Mali]), cash alone is rarely sufficient: ○ Social assistance should be coordinated with removal/reduction of physical access barriers; linkages to functional local food markets for affordable, nutritious foods; addressing land rights issues for women (Chakrabarti et al. 2020 [Zambia]; UNICEF, 2020 [Tanzania]; Gellie et al., 2019 [Tanzania]; Heckert et al. 2019 [Burkina Faso]; Dietrich & Schmerzeck, 2019 [Kenya]; Kuhnlein et al., 2013 [several countries]). ○ Asset transfers should be combined with livelihoods and life skills training (e.g., UNICEF, 2020 [Tanzania]; Gellie et al. [Tanzania]). ○ After climate-related shocks such as drought, when food insecurity tends to be highest, the purchasing power of cash transfers is limited if recovery of certain aspects of the local food system (e.g., food prices; integration of food-producing households' outputs into local markets and value chains) are also not addressed (Dietrich and Schmerzeck, 2019 [Kenya]). • Within targeted communities, oversight and accountability mechanisms must be in place to deter favouritism, e.g., by ensuring needs-based targeting of social transfers and equitable access to services (Gelli et al., 2017 [Malawi]).	✓	✓		✓	✓	✓

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:		Urban poor:		Disabled:		Pastoralist/ nomad:		Ethnic minority/ indigenous:		IDP/ refugee:
SYMBOL KEY FOR SECTORS:	Agri-culture:		Child prot.		Educ.		Health		Social prot.		WASH:

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
3. **Locally driven <u>nutrition-sensitive agriculture micro-interventions</u> (e.g., enhancing production and crop diversification of smallholder farms, promoting cultivation of nutrient-rich fruits and vegetables in home/community/school gardens, promoting access to and consumption of animal-source foods) that strengthen livelihoods in addition to promoting the production and consumption of more-nutritious local foods** *(Refer to FCDO Guidance on Nutrition-sensitive Programming for Agriculture and Food Systems for further information on agricultural strategies.)* *SECTORS*: **<u>ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES</u>**: (a) Engagement and training of local service providers, who are well-established and trusted members of their communities, to efficiently and effectively reach persons/communities that are usually hard to reach; (b) localised/small-scale interventions to improve the local production of more-nutritious foods; (c) SBC interventions on nutrition, health and hygiene; (d) targeting and engagement of women in trainings vis-à-vis the above, and through gender-sensitive behaviour change activities **<u>KEY LESSONS LEARNT:</u>** • Strengthening demand-side factors (e.g., local capacity, beliefs related to diets and food consumption) should be combined with interventions to address supply-side gaps (e.g., dysfunctional local food markets) (Dietrich and Schmerzeck, 2019 [Kenya]). • Women's status and empowerment, particularly in the form of strengthening women's decision making skills and prioritising them as targets for poverty reduction initiatives, play a role in strengthening the agriculture-nutrition pathway (Ruel et al., 2018 [several countries]; Kuhnlein et al., 2013 [several countries]). • Leverage trusted members of the local communities to diversify agricultural production (e.g., as rural service providers supporting/overseeing efforts to improve both the quality and the quantity of food produced (Bernet et al., 2018 [several countries]; Kuhnlein, 2013 [several countries]). • Combine activities that facilitate production diversity (e.g., crop diversification and cultivation of nutrient-rich foods) with localised capacity building and community-to-community learning exchange to translate production diversity into consumption diversity (Pradhan et al., 2021 [India]; Vaidyanathan and Shrimpton, 2017 [several countries]). • Building confidence in local food systems and giving credence to community-specific knowledge and methods that centre on interlinkages between food, culture and ecosystems is a critical success factor in promoting nutritious diets (Kuhnlein et al., 2013).	✓			✓	✓	

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:	Urban poor:	People with disabilities:	Pastoralist/ nomad:	Ethnic minority/ indigenous:	IDP/ refugee:
SYMBOL KEY FOR SECTORS:	Agri-culture:	Child prot.	Educ.	Health	Social prot.	WASH:

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
4. Sensitization/training and supervision of service providers to make existing services more friendly/accessible to members of particular at-risk groups *SECTOR*: **ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES:** (a) peer-to-peer support amongst service providers; (b) inclusion of service providers as targets in community stigma reduction activities; (c) proven quality improvement strategies in the health sector such as 'Plan, Do, Study, Act'—*Documented to improve acute malnutrition treatment outcomes (e.g., among under-fives, significantly higher cure rate for acute malnutrition, significantly lower defaulter rate), not just prevention outcomes (Lazzerini et al., 2019 (a) and (b) [Uganda])* **KEY LESSONS LEARNT:** • Coordinate this strategy with demand generation interventions (e.g., social transfers centred on women's empowerment (see strategy option #1) to promote nutrition-sensitive care seeking (UNICEF, 2020 [Tanzania]). • Peer-to-peer supervision models for service providers at health facilities and with community health workers shows promise in emergency settings (Lazzerini et al., 2019 a and b [Uganda]). • Couple this strategy with efforts to promote inclusive service delivery (e.g., disability-friendly/disability-inclusive nutrition services (Holden and Corby (2019 [multi-country]).	✓	✓	✓			✓

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:	Urban poor:	People with disabilities:	Pastoralist/ nomad:	Ethnic minority/ indigenous:	IDP/ refugee:
SYMBOL KEY FOR SECTORS:	Agri-culture:	Child prot.	Educ.	Health	Social prot.	WASH:

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
5. Within targeted communities/at-risk groups, support **group-based models (e.g., care groups, parent groups) that are "safe spaces" for delivery of interventions, peer-to-peer support in behaviour change and capacity-building (e.g., economic strengthening of women)** *SECTORS*: **ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES:** (a) parenting education/training; (b) income-generating activities targeting women; (c) outreach **KEY LESSONS LEARNT:** • Embedding nutrition behaviour change interventions within broader parenting/caregiver programmes or initiatives can be effective in promoting nutrition-specific and nutrition-sensitive care practices and outcomes, e.g., IYCT (Tanaka, 2017 [South Sudan]) AND improving caregiver knowledge and confidence re: child feeding practices and reducing childhood illness episodes among children with disabilities (Zuurmond et al., 2018 [Ghana]). • This approach is viable in communities where conflict or other factors impede access to conventional service delivery providers or sites. • Care group and community-based SBC interventions can be viable in settings that are often characterised by transient populations, e.g., an urban slum (Chanani et al., 2017 [India]) or in IDP or refugee camps (Tanaka, 2017 [South Sudan]). • Care group models are also a viable strategy option in places where tensions may exist among different socioeconomic, ethnic and/or livelihoods groups, since it deters workers from subjectively excluding some of the more-vulnerable individuals in the community from programme activities (Tanaka, 2017 [South Sudan]). • Support clear referral pathways and mechanisms to link beneficiaries to accessible services and/or, in the case of transient populations/populations on the move (e.g., displaced groups), employ low-tech, informal modes of tracing beneficiaries as they move from one locality to another (e.g. using social networks/grapevine exchange), connecting them with local groups in their new location (Tanaka, 2017 [South Sudan]).		✓	✓	✓		✓

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:	Urban poor:	People with disabilities:	Pastoralist/ nomad:	Ethnic minority/ indigenous:	IDP/ refugee:
SYMBOL KEY FOR SECTORS:	**Agri-culture:**	**Child prot.**	**Educ.**	**Health**	**Social prot.**	**WASH:**

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
6. Use mobile phone technology/platforms to facilitate uptake of nutrition-relevant behaviours (health care seeking, improved food consumption patterns) AND generate real-time, appropriately disaggregated (e.g., ethnicity disaggregated) tracking/monitoring data *SECTORS*: **ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES:** (a) digital cash transfers, (b) use of mobile phones for community-level monitoring and tracking of targeted beneficiaries, (c) coordinated use of mobile technology to facilitate access to markets, (d) SBC interventions targeting caregivers **KEY LESSONS LEARNT:** • Phone calls can be more effective than SMS, particularly a) with multiple languages at play, b) when members of the at-risk group have low levels of literacy/ numeracy, and/or c) personalised contact can dismantle community mistrust of formal systems of care (Ceballos et al. 2020 [Guatemala]). • Mobile phone technology can be introduced to leverage social cohesion within certain groups, e.g., as an effective tool for pastoralists to communicate and coordinate on purchasing nutrient-dense foods (Parlasca et al., 2019 [Kenya]). • When employed with SBC interventions, mobile phone technology can aid in tracking beneficiary movements to maintain continuity of delivery of SBC interventions (Tanaka, 2017 [South Sudan]), minimise malnutrition treatment defaulters (Lazzerini et al., 2019 [Uganda]) and monitor care seeking and service use for services/interventions (e.g., micronutrient supplementation) being promoted (Ceballos et al. 2020 [Guatemala]).	✓			✓	✓	✓

SYMBOL KEY FOR AT-RISK GROUPS:	Deeply rural/ remote:	Urban poor:	People with disabilities:	Pastoralist/ nomad:	Ethnic minority/ indigenous:	IDP/ refugee:
SYMBOL KEY FOR SECTORS:	**Agri-culture:**	**Child prot.**	**Educ.**	**Health**	**Social prot.**	**WASH:**

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
7. Community-level stigma reduction to shift beliefs and practices that limit access to both nutrition-specific and nutrition-sensitive services for highly marginalised groups *SECTOR:* **ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES:** (a) SBC/sensitization training of gatekeepers (e.g., traditional leaders, frontline/grassroots-level service providers, including community volunteers); (b) development and enforcement of government-endorsed guidelines that promote/prioritise mechanisms for the inclusion of members of most-at-risk groups in programmes/schemes/initiatives **KEY LESSONS LEARNT:** • The existence of nutrition-friendly government guidelines/policies that promote participation of most-at-risk groups such as marginalised ethnic minority or indigenous groups is central to creating an enabling, non-discriminatory environment (Mamgain et al., 2012 [India]) and promoting transformative changes in food and nutrition practices (Kuhnlein, HV et al, 2013 [several countries]). • In humanitarian settings, when engaging political leaders/local influencers, a balance must be struck between gaining their support and maintaining impartiality and neutrality (Shah et al., 2021 [several countries]) • Pay attention to the intersection that often exists between stigma and discrimination and poverty (Zuurmond et al., 2018 [Ghana]; Kuhnlein et al., 2013 [several countries]).			✓		✓	

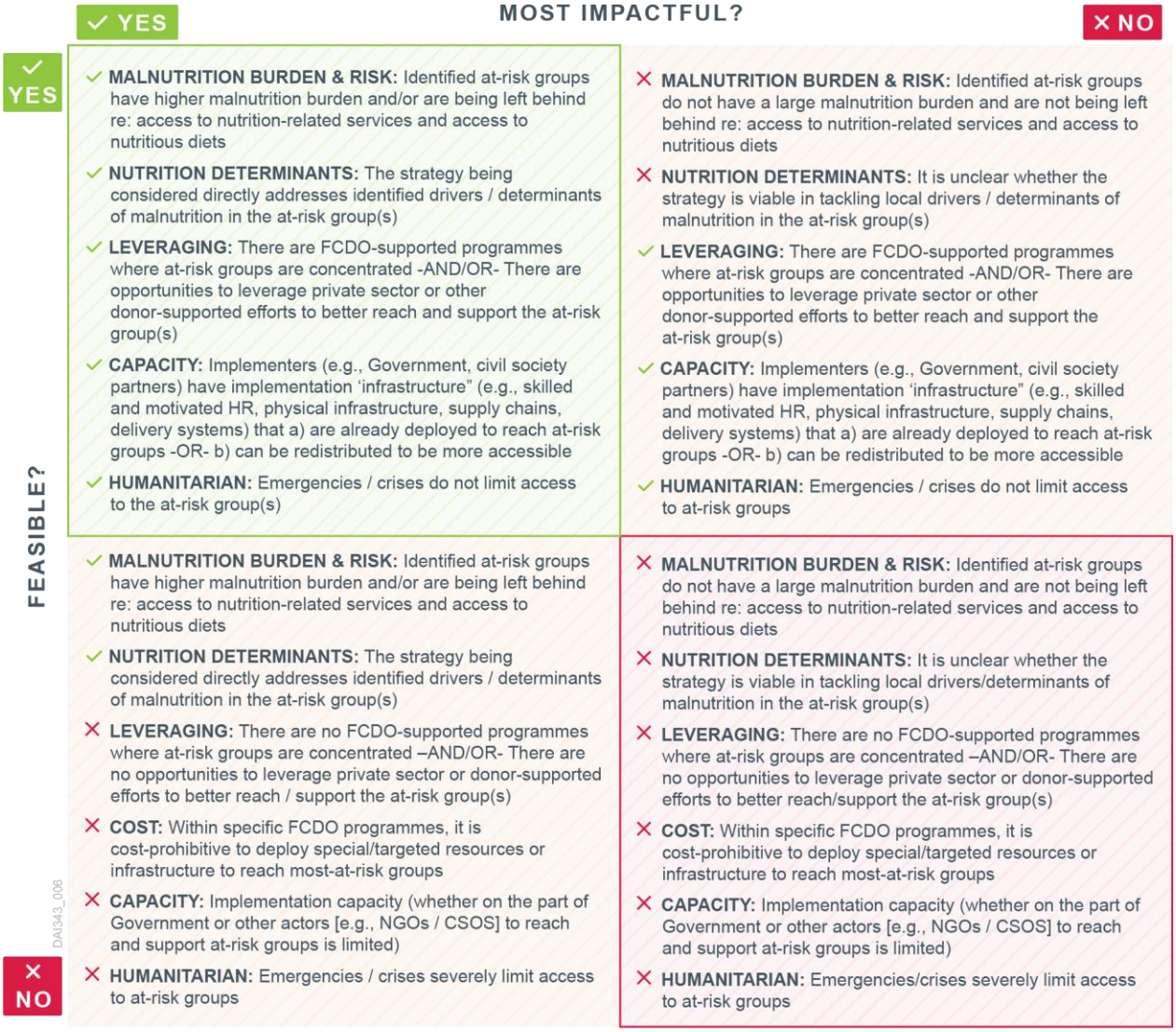
SYMBOL KEY FOR AT-RISK GROUPS:	**Deeply rural/ remote:**		**Urban poor:**		**People with disabilities:**		**Pastoralist/ nomad:**		**Ethnic minority/ indigenous:**		**IDP/ refugee:**	
SYMBOL KEY FOR SECTORS:	**Agri-culture:**		**Child prot.**		**Educ.**		**Health**		**Social prot.**		**WASH:**	

MAIN STRATEGY OPTION AND PROGRAMMATIC LESSONS LEARNT	EVIDENCE ON EFFECTIVENESS FOR:					
						
8. Utilise schools as platforms for improving child and/or community access to nutritious foods SECTORS:   **ILLUSTRATIVE INTERVENTIONS/SUB-STRATEGIES**: (a) classroom-based education sessions on optimal dietary practices; (b) use of schools as community kitchens; (c) nutrition SBC; (d) social transfers (e.g., conditional or unconditional cash transfers); (e) livelihoods strengthening for women; **LESSONS LEARNT:** • Schools do not have to be the point of intervention; they can be used as access points to support most-vulnerable children (e.g., Syrian refugee children with disabilities and/or living in remote areas), and link them/their families with interventions such as cash transfers to cover incidental expenses such as snacks/food, transport and clothing, which are associated with sending a child to school (de Hoop et al., 2019 [Syria]). • Schools can also be used as sites for women-led community kitchens that employ community women (as identified by women's groups/CBOs) who, in turn, sell subsidized, nutritious foods (Ghattas et al., 2020 [Lebanon]). • Nutrition experts should advise menu development in alignment with the recommended dietary allowance for children (Ghattas et al., 2020 [Lebanon]),	✓	✓	✓	✓		✓

3.2.5 Feasible and/or impactful?

It is important to acknowledge that there is often an increased level of difficulty in designing and implementing programmes to reach population groups that are most nutritionally at-risk. **In making strategic decisions about what to do, it is important to consider what is potentially impactful versus what is feasible to implement**. There are several domains to consider when exploring the feasibility and impact potential of different strategy options (*Figure 6)*: 1) malnutrition burden and risk, 2) priority nutrition determinants, 3) opportunities for leveraging existing programmes and/or capacities, 4) implementation capacity, and 5) humanitarian status. In the figure, the green box (upper left quadrant) depicts a scenario in which there is strong justification for implementing one or more of the strategy options presented in Table 5, in order to better reach and support nutritionally at-risk groups via FCDO-supported programmes. The red box (lower right quadrant) depicts a scenario in which specialised strategies for at-risk groups are likely not required, but existing programmes should continue/strengthen the monitoring of equitable access and quality from a nutrition perspective (see Section 3.4.1: Monitoring, Evaluation and Learning) to ensure that no one is being left behind by FCDO-supported programmes. Furthermore, **FCDO should explore opportunities to contribute to impactful efforts by others** (e.g., through FCDO's contributions to multilateral/UN agencies or multi-donor programmes/ initiatives) to mitigate challenges or shortcomings that impact feasibility and country progress vis-à-vis nutrition targets.

Figure 6. Priority issues to consider when determining if strategy options are feasible versus impactful



3.3 PHASE 3: Implementation

3.3.1 Upstream activities

Effectively reaching most-at-risk groups through nutrition-specific and nutrition-sensitive programmes will entail addressing critical issues with the country context, not just the technical implementation of specific programme strategies and interventions. The checklist presented in Table 3 (Phase 1) can be used to highlight gaps and opportunities for FCDO action. Key actions can be classified into three main streams of work: (1) Advocacy and Influencing, (2) Programmatic Leveraging, and (3) Partnerships (Table 6).

Table 6. Recommended streams of work to address dimensions of the enabling environment and other upstream issues related to most-at-risk groups

Strengthening of Governance, Coordination and Participation

Advocacy and Influencing

In collaboration with other bilateral donors and UN agencies:

- Conduct a political economy analysis (sector- or problem-focussed depending on need) to identify feasible entry points that speak to the interests and incentives of the most relevant stakeholders, and where advocacy is informed by an understanding of the power relations between different actors
- Pursue joint advocacy targeting Government –national and sub-national levels if there is a devolved governance structure ("yes" to Q1 in Table 3) re:
  a) Financing and implementing activities to address the nutritional needs of at-risk groups is central to achieving national and global nutrition goals
  b) Participatory, inclusive mechanisms supporting 'Leave No One Behind' that integrates feedback from beneficiaries
- Build coalitions with other development and humanitarian partners to:
  a) draw attention to inequalities and harmful gender and social norms*
  b) promote the operationalisation of gender and inclusion principles to nutrition efforts
  c) underscore the importance of legal recognition of an individual's or group's identity in ensuring access to services, information and commodities

Programmatic Leveraging

- Leverage FCDO's institutional arrangements/roles ("yes" to Qs 6 and 7 in Table 3) in multi-stakeholder platforms/mechanisms to raise awareness on targeted programming for at-risk groups in order to achieve universal access goals

Partnerships

- Pursue opportunities for strategic partnerships with CSOs, private sector to:
  a) extend access to most-at-risk groups within sector-specific programmes
  b) foster mutual accountability among multi-sectoral nutrition stakeholders to address malnutrition prevention and treatment in at-risk groups
  c) create space in national and sub-national platforms for them to participate in gender and inclusion-sensitive planning, implementation & review processes*

Policy/Legislative Environment

Advocacy and Influencing

- In coordination with other donors and the UN, sensitise national / sub-national decision makers on operational requirements for ensuring that implemented policies/legislation 'leave no one behind.'
- When deemed necessary and appropriate, advocate for policy and guideline review/updating to better reflect a) inclusive development/gender/disability equity and social inclusion (GESI) principles and b) greater resilience to shocks (e.g., climate-related hazards, COVID-19, etc.)

Leveraging

- Identify gaps/bottlenecks in implementation of policies/frameworks and establish provisions and/or contingencies in FCDO grants/support to address those gaps
- Take stock of missed opportunities for convergent programming (e.g., integrated service delivery,

multi-sectoral programming) to address underlying and immediate determinants of malnutrition in at-risk groups in specific locations.

Partnerships

- Coordinate targeting of specific geographical areas and 'hotspots' for malnutrition, improve the quality of and access to basic infrastructure, goods and services for at-risk groups, including women and girls within those groups

Evidence for Action

Partnerships

- Work in collaboration with other donors, academic institutions and the national statistics office to support capacity strengthening for GESI-based evidence creation, data analysis and data presentation/use
- ***GESI-based strengthening of nutrition data systems***
  a) Strengthen evidence availability and accessibility to make a strong business case for tailoring/ enhancing programming to reach most-at-risk groups
  b) Work with in-country actors to integrate (triangulate) data and information on nutritionally at-risk groups from a range of sources and constituencies
  c) Establish provisions/contingencies for gender- and inclusion-focussed evidence creation, data analysis and data presentation/use with supported programmes
  d) Support civil society organisations to engage in local-level evidence generation, monitoring, data analysis and evidence-informed advocacy and planning
  e) Institutionalise mechanisms for beneficiary feedback to inform planning, quality assurance during implementation, monitoring of programme performance and evaluation.

Work related to Capacity

Partnerships

- In collaboration with other donors, take stock of the following through a gender and inclusion lens: (a) HR quantity/distribution; (b) technical capacity (understanding of key concepts; access to, and ability to analyse data; analysis, planning and monitoring approaches; interpersonal skills and cultural sensitivity/human rights-based approaches to supporting marginalised, at-risk groups and engaging beneficiaries in effective, safe and respectful ways); (c) institutional arrangements to support other building blocks of service delivery
- Identify opportunities for TA support on gender and inclusion analysis, training, ethics, M&E

Programmatic Leveraging

Ensure that FCDO-supported trainings and capacity-building activities build competencies of frontline providers related to sociocultural norms (including gender norms), communication needs (language, functional difficulties such as vision, hearing impairment); social stigma and traditional practices (e.g., consumption of traditional foods, dietary practices)

*Recommended action adapted from the following resource: UNSDG (2019). Leaving No One Behind: A UNSDG Operational Guide for UN Country Teams

3.3.2 Value-for-money considerations

Value for money (VfM)—"maximising the contribution of financial resources to sustainable, effective, and equitable change for the most vulnerable and marginalised"[8]—is a core tenet of FCDO's approach to aid. It is important to acknowledge, however, that equity and inclusion comes at a cost in the present but can yield transformative, sustainable gains in future. **In the quest to better reach and address the nutritional needs of at-risk groups, VfM considerations cannot override nutrition equity aims and, more broadly, people's human rights.** The costs of implementing programme activities that reach and support nutritionally at-risk groups must therefore be balanced against the cost of not achieving nutrition targets (e.g., high future health care costs, suboptimal educational attainment and school performance, lower productivity of working-age adults, mutigenerational poverty, suboptimal national economic growth).[9]

[8] https://www.ukaiddirect.org/learning/value-for-money/

[9] FAO. 2014. Understanding the true cost of malnutrition. Available at http://www.fao.org/zhc/detail-events/en/c/238389/, accessed on 1 July 2021.

Elements of standard FCDO VfM analysis, for example, quantifying and comparing disability-adjusted life years (DALYs) saved through nutrition-sensitive programming for most-at-risk groups versus additional programme implementation costs, are applicable to deliberate strategies to reach most-at-risk groups.[10]

Nonetheless, it is important to consider the higher implementation costs that can be associated with programme components, for example:

- Costs of deploying staff in remote, hard-to-reach and/or insecure geographical locations
- Filling gaps in HR capabilities (language and communication skills, rights-based approaches to programming)
- Supply-chain management costs associated with ensuring last-mile availability of essential commodities and supplies
- Outreach and community engagement costs
- New/modified service delivery modalities such as mobile health clinics and disability-accessible sites and other provisions to ensure that service delivery is responsive to issues such as language requirements, social norms (e.g., traits of frontline service providers and 'rules of engagement' with targeted communities) and/or access barriers (e.g., for individuals with a visual/hearing/mobility impairment)
- Costs of data collection to support refined analysis to inform inclusive nutrition efforts, particularly given the intersectionality of nutrition risk factors (For example, according to the UNSDG operational guide on leaving no one behind (UNSDG, 2018), "refined analysis of disadvantaged groups using multilevel disaggregation—for example, women from ethnic minorities living in poor households and rural areas" requires] larger sample sizes of surveys).
- Costs of addressing stigma and discrimination (e.g., special training and/or community-wide SBC)

There are, however, opportunities to explore that might have positive VfM implications. For example:

- Explore how private-sector actors can responsibly contribute to inclusive nutrition efforts. This might entail partnerships to use digital/mobile phone platforms; strengthening local capacities to deliver information, goods and/or services closer to members of at-risk groups; and/or financial or in-kind support in extending the reach of high-impact, high-quality nutrition-specific and nutrition-sensitive interventions. Note, however, that any engagement of private-sector entities will need to be effectively managed to ensure business accountability for improved nutrition (e.g., holding food and beverage companies accountable for marketing/selling affordable, nutritious foods).
- Explore ways that digital technology and platforms (e.g., mobile phones, cloud technology, GIS) can facilitate evidence creation, as well as increased access to information, commodities and services.

3.4 PHASE 4: Monitoring, evaluation and learning

3.4.1 Monitoring and evaluating nutrition-related results in most-at-risk population groups

In the era of evidence-informed planning and programming, the absence of nutrition-related data on most-at-risk groups can hamper efforts to extend the reach and improve the effectiveness of different programmes to improve nutrition outcomes in those groups. Most countries that are members of the SUN Movement now have multisectoral results frameworks for nutrition. However, **data systems and data sources that exist in a particular country might not be well-suited to monitor nutrition outcomes in at-risk groups, or track outputs of different sectors in relation to those at-risk groups**. An FAO compilation of case studies related to food and nutrition interventions with indigenous peoples (Kuhnlein et al, 2013) highlighted that qualitative, not just quantitative, methodologies have an important role to play in determining 'success' in effecting important shifts related to participation, empowerment, community solidarity and use of culture and traditional foods as nutrition determinants.

[10] Sulser TB, Beach RH, Wiebe KD, Dunston S, Fukagawa NK. Disability-adjusted life years due to chronic and hidden hunger under food system evolution with climate change and adaptation to 2050. Am J Clin Nutr. 2021 May 20:nqab101. doi: 10.1093/ajcn/nqab101. Epub ahead of print. PMID: 34013962.

It is important to revisit existing FCDO programme log frames and M&E systems to ensure that they are well-suited to monitor nutrition outcomes in at-risk groups and track outputs and outcomes of different sectors in relation to those at-risk groups. Across programmes, 1) tracking the number and percentage of programmes that include targeted nutrition strategies for one or more of the identified at-risk groups, 2) setting targets and monitoring the progress of different sectoral programmes in reaching members at at-risk groups, and 3) incorporating and responding to quantitative and qualitative beneficiary engagement indicators in programme monitoring and evaluation that reflect the perceptions, opinions and/or feelings of beneficiaries related to programme progress. Adjustments such as the above will better position FCDO to support countries' achievement of nutrition targets and demonstrate a commitment to the 'Leaving No One Behind' agenda.

BOX 10. Tips for identifying indicators to monitor efforts to improve nutritional outcomes in most-at-risk groups

- The indicator relates to priority elements of nutrition causal pathway (see Section 4.1).
- There are surveillance systems or other data collection instruments that allow a baseline to be set and changes to be monitored over time
- The indicator is either currently collected or could be collected with minimal cost to implementers
- There is capacity (within FCDO, among implementing partners) to monitor indicators (including data generation, compilation and sharing, quality assessment, analysis and synthesis, and communication of results).

Adapted from WHO/UNICEF Technical expert advisory group on nutrition monitoring (TEAM), 2017

There is also the challenge of having up-to-date information. For example, commonly used national sources of nutrition data are updated infrequently (e.g., with DHS, usually every five years) and are limited in their ability to support analysis of nutrition disparities beyond a small set of sociodemographic variables (e.g., urban versus rural location; sub-national administrative unit such as province, region, county or district; age group; sex (male/female); household wealth quintile), and often miss marginalized groups, such as persons with disabilities. **Identification of nutrition disparities by sub-national administrative unit and/or ethnic group** (assessed in some DHS) can set the stage for further, more-nuanced sub-national analysis and data gathering to support real-time monitoring and evidence-informed decision making to address the nutritional needs of at-risk groups.

In addition, data from early warning systems (e.g., in arid and semi-arid land (ASAL) areas, are routinely monitored to forecast climate-related hazards and monitor and/or predict the impacts of drought and famine on communities. All of the above can facilitate planning, implementation and monitoring. The selection of indicators for any programme should reflect the programme's focus and the resources that have been allocated to strategies for at-risk groups (Boxes 10 and 11). Given the range of nutrition determinants and the plethora of relevant data sources, a constellation of indicators, as listed below, should be considered.

BOX 11. Relevant resources on indicators when monitoring progress in reaching nutritional at-risk groups

Global Nutrition Monitoring Framework: operational guidance for tracking progress in meeting targets for 2025. Geneva: World Health Organization; 2017

E-Handbook on SDG Indicators (UN, 2020)

Human Rights Indicators: A Guide to Measurement and Implementation (UNHCR, 2012)

Refer to FCDO's Guidance on M&E for Nutrition-Relevant Programmes (September/October 2021) for practical information and indicator tools for FCDO programmes in different sectors.

1. **On primary nutrition outcome indicators related to the WHA nutrition targets:**
   - Prevalence of low height-for-age (stunting) in children under five years of age
   - Prevalence of iron-deficiency anaemia in women (haemoglobin <11 g/dL in pregnant women; haemoglobin <12 g/dL in non-pregnant women)
   - Prevalence of low birthweight (infants born <2500 g)
   - Prevalence of weight-for-height >+2 SD (i.e., overweight/obesity) in children under five years of age
   - Prevalence of exclusive breastfeeding in infants aged six months or less
   - Prevalence of low weight-for-height (i.e., wasting) in children under five years of age

2. **On intermediate determinants of nutrition, for example:**
   - SDG Indicator 2.1.2: Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

- Minimum dietary diversity (MDD) for children aged 6–23 months from the at-risk group
- MDD for women of reproductive age from the at-risk group
- Average household expenditure on food for members of the at-risk group (or location with high concentration of members of the at-risk group)
- Exclusive breastfeeding rate
- Number of accessible health facilities with established capacity to manage acute malnutrition

3. **On underlying determinants of nutrition, for example:**

- SDG Indicator 1.3.1: Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, new-borns, work-injury victims and the poor and the vulnerable
- Adaptation of SDG Indicator 4.5.1: Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for key programme coverage indicators in different sectors
- SDG Indicator 5.4.1: Proportion of time spent on unpaid domestic and care work, by sex, age and location (women's empowerment)
- SDG Indicator 10.2.1: Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities (poverty, economic vulnerability)

4. **Process indicators related to specific strategies being implemented to better address the nutritional needs of at-risk groups, for example:**

- Number of frontline workers (e.g., community health workers, agricultural extension workers, social workers) deployed to the same locations/sites where at-risk groups live/can be reached
- Number of frontline workers trained on serving members of at-risk groups in a dignified, non-discriminatory manner
- Number of female group members participating in nutrition-sensitive agricultural micro-interventions
- Number of at-risk group members participating in nutrition-sensitive parenting or care groups

Annex 4 provides further examples of different indicators related to equity, participation and other elements of programming for at-risk groups.

3.4.2 Monitoring VfM

As stated previously (see Section 3.3.2), efforts to reach most-at-risk groups might be associated with higher implementation costs. While this shouldn't be a deterrent to designing or modifying programme strategies and interventions to better support nutritionally at-risk groups, **it is important to monitor specific dimensions of VfM**. There are several dimensions of VfM that are normally assessed in FCDO-supported programmes: economy, efficient, effectiveness, equity and cost-effectiveness.[11] Effectiveness, cost-effectiveness and equity are particularly important to monitor when implementing strategies to prevent and treat malnutrition in at-risk groups. For example:

- **ON EFFECTIVENESS**: How well are the outputs from an intervention achieving the intended effects vis-à-vis the nutrition causal pathway?
- **ON EQUITY:** How fairly are the benefits distributed? To what extent are we reaching marginalised groups?
- **ON COST-EFFECTIVENESS:** What is the strategy's ultimate impact on nutritional outcomes in the at-risk group(s), relative to the inputs that FCDO (or our implementing partners) invest in?

BOX 12. A useful resource with relevant insights to maximize the VfM of FCDO's support on most-at-risk groups

Gisselquist R. 2015. Good Aid in Hard Places: Learning from 'Successful' Interventions in Fragile Situations, International Peacekeeping, 22:4, 283-301

[11] Laws, E and Valters C. 2021. Value for money and adaptive programming: Approaches, measures and managementhttps://cdn.odi.org/media/documents/odi-ml-rethinkingvfm-wp572-final.pdf

3.4.3 Learning and influencing

In supporting countries in achieving national and global nutrition targets, ensure that segments of the population identified as being left behind are better served by existing programmes. Capture and share learning from FCDO-supported efforts to reach the most-at-risk groups. Additionally, consider findings from the stakeholder landscape analysis described in Section 3.1.3, as well as the stakeholder platforms and entry points leveraged to conduct the necessary scoping and situational analysis. It is important to identify a set of key milestones that support learning and influencing, as well as a concise set of learning indicators to track. Below are examples:

Illustrative milestones: (1) There is improved/refined data disaggregation within existing data sources to enable the tracking of outputs and outcomes related to the most-at-risk groups; (2) Special provisions are being made within planned data gathering efforts to yield samples that facilitate analysis of disparities in key indicators, consistent with the characteristics and/or circumstances of identified at-risk groups. (3) Learning from FCDO-support programmes is informing upstream support such as capacity-building, advocacy and policy development/review/revision.

Illustrative learning and influence indicators: (1) Number and frequency of forums and/or events supported by FCDO to facilitate a) the effective delivery of services/interventions to most-at-risk groups, b) mutual learning and South-South knowledge sharing; and/or c) TA.[12] (2) Number of stakeholders (implementing partners, local decision makers) becoming advocates/champions/agents of change for reaching and supporting nutritionally at-risk groups; (3) Number of FCDO-supported strategies that are adopted/implemented by other partners/stakeholders.

The ability of at-risk groups (and subgroups within them) to have their basic nutrition needs met is inextricably linked to issues of rights, discrimination and exclusion at all levels of society, **FCDO staff will need to ensure that programmes are 1) continually attentive to learning about and reflecting on progress (or the lack of progress) and 2) open to adaptive management and making programmatic shifts**. **Learning processes should seek to augment the participation of at-risk groups in reflecting, decision-making and planning programme improvements.** Rooting learning processes in feedback and ongoing dialogue with the groups may also surface hidden barriers; inspire greater trust and legitimacy (particularly in programmes working with community outreach workers, community-based health services, sensitisation and SBC initiatives); identify unconventional partners and champions who can aid in accessing hard-to-reach groups; and reveal innovative ways of measuring change, particularly amongst groups and sub-groups that are less visible and/or under-represented in sustainable development processes.

[12] Adapted from language included in the "Global Nutrition for Growth Compact 2020" https://nutritionforgrowth.org/wp-content/uploads/2020/03/Endorserscompact_update7_10_2013.pdf

ANNEXES

Annex 1: Useful Resources and Tools

I. Resources to guide identification of most-at-risk groups

Demographic and Health Survey (DHS) program's mobile app, available at https://www.dhsprogram.com/data/Mobile-App.cfm, and STATcompiler, available at https://www.statcompiler.com/en/.

The mobile app provides easy access to DHS indicators, including but not limited to nutrition. Using the app, it is possible to access disaggregated indicator estimates for key sociodemographic variables (e.g., urban-rural residence, age group, household wealth quintile), as well as generate national and subnational maps, which can be a useful starting point in identifying most-at-risk population groups within a given country. Using STATcompiler, it is possible to custom tables and graphs based on DHS indicators, with options to view that data according to key sociodemographic background characteristics.

2020 Global Nutrition Report: Action on equity to end malnutrition. Bristol, UK: Development Initiatives. https://globalnutritionreport.org/reports/2020-global-nutrition-report/. An annual publication that presents a critical analysis of global, regional and country progress and challenges in achieving key nutrition targets.

National Information Platforms for Nutrition (NIPN), available at https://www.nipn-nutrition-platforms.org/NIPN-sub-national-nutrition-dashboard.

In triangulating data at national and sub-national levels, NIPN, which was formed to bring together information from various datasets to facilitate multisectoral analyses of the nutrition situation, is a tool to spark dialogue between policy makers analysis regarding multisectoral nutrition, indicators, programs and investment. A secondary objective of NIPN is to quickly produce an initial multisectoral analysis of nutrition related information at sub-national level.

World Food Programme's Vulnerability Analysis and Mapping (VAM), available at https://dataviz.vam.wfp.org/.

This is an online hub for food security analysis. In addition to providing access to various reports and analyses, the website provides customizable, web-based analytical tools to generate country-specific data on indicators used to assess food security and nutrition vulnerability

The following resources provide a greater understanding of the unique nutrition vulnerabilities of children and women, irrespective of at-risk group:

Branca F, Piwoz E, Schultink W, Sullivan L M. (2015). Nutrition and health in women, children, and adolescent girls BMJ; 351 :h4173 doi:10.1136/bmj.h4173.

Food and Agriculture Organization of the United Nations (FAO) (n.d). "Nutritional status and vulnerability:The spectrum of malnutrition" (webpage) http://www.fao.org/3/x8200e/x8200e04.htm, accessed 15 August 2021

The following resources shed light on at-risk groups through a humanitarian lens:

Cook, ADB/S. Rajaratnam School of International Studies (2020). COVID-19 & Humanitarian Response: Leave No-One Behind. https://www.preventionweb.net/files/71086_co200442.pdf

Hammer CC et al (2018). Risk factors and risk factor cascades for communicable disease outbreaks in complex humanitarian emergencies: a qualitative systematic review. BMJ Glob Health;3:e000647. doi:10.1136/ bmjgh-2017-000647

Lartey and Oenema (2020). Equity and the right to food: A systemic approach to tackling malnutrition. https://globalnutritionreport.org/blog/equity-and-right-food-systemic-approach-tackling-malnutrition/

United Nations High Commissioner for Refugees (UNHCR) (2021). Global Trends: Forced Displacement – 2020. https://www.unhcr.org/60b638e37/unhcr-global-trends-2020

II. Resources to guide design and implementation

Action contre la Faim (2015) Link Nutrition Causal Analysis (NCA) Overview and Guidelines. https://www.actioncontrelafaim.org/wp-content/uploads/2018/01/nca_overview_en_web-low.pdf

This resource provides practical methodological guidance on the Link NCA approach, which is a locally driven, participatory nutrition causal analysis. Because it centres on 1) engaging an array of nutrition actors at a local level and 2) triangulating evidence, it can be useful in engaging members of identified at-risk groups, in addition to local implementers and other stakeholders, in determining and implementing contextually appropriate solutions to address priority nutritional needs in most-at-risk groups.

CORE Group Nutrition Working Group, Food and Nutrition Technical Assistance III Project (FANTA), and Save the Children. 2015. "Nutrition Program Design Assistant: A Tool for Program Planners." Version 2. Washington, DC: FANTA/FHI 360. https://coregroup.org/wp-content/uploads/media-backup/documents/Resources/Tools/NPDA/NPDA-Reference-Guide-April2015.pdf

The tool provides an introduction, key concepts, terminology and reference materials to guide the situation analysis and decision-making on nutrition interventions and approaches that are appropriate based on needs, resources and objectives.

Islamic Relief Worldwide (2018). Leave no one behind in humanitarian programming: An approach to understanding intersectional programming: Age, Gender and Diversity Analysis. https://reliefweb.int/sites/reliefweb.int/files/resources/Learning-paper-1-Leave-no-one-behind-in-humanitarian-programming-An-approach-to-understanding-intersectional-programming_web.pdf.

This tool is predicated on a multisectoral response and is particularly relevant to programming in fragile and conflict affected settings.

Ruel MT, Alderman H; Maternal and Child Nutrition Study Group. Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition? Lancet. 2013 Aug 10;382(9891):536-51. doi: 10.1016/S0140-6736(13)60843-0. Epub 2013 Jun 6. Erratum in: Lancet. 2013 Aug 10;382(9891):506. PMID: 23746780. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60843-0/fulltext

This peer-reviewed journal article appeared in the seminal Lancet series in maternal and child nutrition. It is one of the most frequently cited sources in drawing the distinction between nutrition-specific and nutrition-sensitive interventions.

United Nations Sustainable Development Group (UNSDG) (2019). Leaving No One Behind: A UNSDG Operational Guide for UN Country Teams. https://unsdg.un.org/sites/default/files/Interim-Draft-Operational-Guide-on-LNOB-for-UNCTs.pdf

This is an interim draft of a guide developed by the United Nations Sustainable Development Group (UNSDG) to aid UN Member States in operationalising the concept of 'leaving no one behind.'

UNICEF (2019). Programme Guidance: Strengthening Shock-Responsive Social Protection Systems. https://www.unicef.org/documents/programme-guidance-strengthening-shock-responsive-social-protection-systems

UNICEF (2018a). UNICEF Guidance for Risk-Informed Programming. https://www.unicef.org/documents/guidance-risk-informed-programming

UNICEF (2018b). Nutrition in Emergencies: Saving lives today, strengthening systems for tomorrow. https://www.unicef.org/media/97011/file/Nutrition-in-emergencies-Saving-Lives-Today-Strengthening-Systems-for-Tomorrow.pdf

This resource provides country illustrations of nutrition programming under diverse emergency scenarios (e.g., Ebola outbreak, conflict).

Annex 2: A review of global evidence on at-risk groups and nutrition determinants

This section provides a detailed overview of the evidence on the six populations groups who have been documented to have elevated malnutrition risk in different settings.

Amongst the broader group, there is a preponderance of evidence and literature on women of reproductive age (WRA), in particular pregnant and lactating women and children under the age of five. This literature focusses largely on the extent to which specific determinants such as urban-rural residence; sex (male, female); age cohort (particularly for age categories among children under five); household income; maternal (and to a lesser extent paternal) education; access to safe drinking water and sanitation; access to maternal health and family planning services; gender discrimination within the household; and women's agency and autonomy affect access to nutritious diets, and to a lesser extent services, and nutritional outcomes. It is important to note that the body of evidence on these sociodemographic variables varies by context (e.g., geographical region, urban/ rural location, and fragile and conflict-affected settings/situations.

Within this large body of general literature on nutrition disparities and nutrition programming, our analysis aimed to examine nutrition risk through a life-course approach that is sensitive to critical developmental transitions (e.g., first 1000 days, during adolescence, pregnancy). That literature reveals specific subpopulations that are particularly nutritionally at-risk because of their exposure to systemic marginalisation, or the context/ settings they live in - or both – act as amplifiers of vulnerability, and a major determinant of their access to healthy diets and improved nutritional status.

a. Children, adolescents and women in deeply rural, remote and/ or physically isolated settings

There is strong evidence, mainly from Southeast Asia and South Asia, of significant disparities in terms of stunting (chronic malnutrition), underweight and micronutrient deficiencies between urban populations and communities living in remote or isolated areas. In Nepal, for example, a number of studies have found that the prevalence of stunting among children aged under 5 years is higher in the rural, mountain or hill regions compared with more urban locations and the Terai plains (Conway et al, 2020). In Lao PDR, levels of stunting in communities living in mountainous areas were more than twice as high as the national average (72.8% as against 33% nationally) and underweight was almost twice as high (50.3% against a national average of 27%) (Boulom et al, 2020). Hill tribe women In Thailand's Chiang Rai had lower intakes of iron, animal protein and calcium than urban women (Sang-ngoen et al, 2020).

Women and girls in rural areas are less likely to consume diverse diets – even compared to other members of their households. In India, rural women recalled consuming four food groups in the previous 24 hours, compared to six food groups for other household members (Gupta et al, 2020). In rural northern Bangladesh, a study of over 30,000 adolescents found that of the five distinct dietary patterns observed, boys were more likely to benefit from the two most diverse food patterns, while girls were more likely to adhere to the least diverse (Thorne-Lyman et al, 2020). Rural women's diets are particularly lacking in iron- and Vitamin A-rich foods – animal/ fish items, fruits and vegetables, dairy and eggs (Sang-ngoen et al, 2020; Gupta et al, 2020).

It is increasingly argued that rural-urban disparities in nutritional outcomes are less to do with remoteness and rural living, and more strongly associated with poverty broadly defined – as encompassing monetary poverty, lack of assets and the multiple deprivations connected to these, including housing and environmental conditions; access to education and health services; and access to safe water and sanitation (Headey et al, 2018; Srinivasan, 2013). In Lao PDR Boulom et al (2020) found that 82% of mountainous households were very poor (earning less than $1 a day), and 20% of households were facing severe food insecurity, and children from households without a mobile phone and rice mills had a higher prevalence of underweight than those with these assets. In Thailand, the hill tribe study participants had significantly less formal education and lower incomes (with 90% earning less than £10 a day) than the urban participants (Sang-ngoen et al, 2019). A 2018 analysis of spatial data and Demographic Health Surveys in 23 sub-Saharan countries found that remote rural communities are only slightly more nutritionally disadvantaged than children from less remote communities, and that once the

study controlled for education, wealth and access to services, the harmful effects of remoteness and rural living largely disappeared (Headey et al, 2018).

Factors affecting maternal caregiving
A study amongst 4,025 mothers and their 4,073 children participating in the Sanitation Hygiene Infant Nutrition Efficacy (SHINE) programme in rural Zimbabwe assessed the factors affecting women's care-giving ability. The study found that those women who reported greater decision-making autonomy, more egalitarian gender norm attitudes, fewer depressive symptoms and higher levels of social support during pregnancy had children who attained better linear growth by 18 months. The link between linear growth associated with gender norms and social support scores was substantial. Each unit increase in decision-making autonomy was significantly associated with a 6% reduced odds of having a stunted child. Mothers with greater time stress during pregnancy were also more likely to have a child with lower LAZ at 18 months, although this association did not reach statistical significance.

Tome, J. et al, 2021, 'Maternal caregiving capabilities are associated with child linear growth in rural Zimbabwe', Maternal & Child Nutrition, Vol. 17, No. 2

Subsistence farming, access to markets and the terms of trade on the basis of which remote households buy and sell agricultural produce and food items have been found to shape to food consumption levels. In Nepal, remote communities rely on subsistence farming, however production diversity is low, and there is limited access to markets (88% of the study households were located more than 40 km from a market) (Boulom et al, 2020). The Boulom et al (2020) study found that households produced fewer than three or four food groups. In Ethiopia, households in more remote areas have significantly lower food consumption levels, lower dietary diversity and are more food insecure than households nearer to the market (Siftel and Minten, 2017). They also do not receive favourable terms of trade at the market, where food prices are often linked to household production, which can often cause prices to spike during lean seasons when remote households are even more reliant on food purchase (Dietrich and Schmerzeck, 2019; Siftel and Minten, 2017). Despite the importance of subsistence farming to the livelihoods of remote communities, they are also often overlooked by national agricultural and nutrition policies (Boulom et al, 2020)

In Lao PDR, children from households that gathered insects and wild eggs such as ant eggs also had lower prevalence of underweight, compared to these who did not (Boulom et al, 2020). That study found that communities collected between four and seven types of foods from the forest people, whilst the poorest households collected wild roots and tubers as an alternative carbohydrate source during periods of high food insecurity and rice shortage. However, the study also notes that the forest area has also been subject to logging, and that diminishing forest resources may have implications for the communities' prospects for diversifying agricultural production.

People living in rural areas can often belong to marginalised ethnic, tribal and indigenous groups, and therefore their nutritional status is shaped by geographic disadvantage and identity-based discrimination. the main ethnic groups in the Lao PDR study, for example, were Mang-kong (73%), and Ta-oy (27%) (Boulom et al, 2020). Gupta et al, 2020 argue that analysis food consumption patterns and dietary diversity in rural areas needs to go beyond gender and look at age, caste, community group and other dimensions of socioeconomic disadvantage. Headey et al 2018 argue that more work is needed to understand whether the concentration of economically disadvantaged people in particular geographic areas - and hence their poor nutrition outcomes – "is a result of characteristics of the areas or of the people in those areas."

A 2016 qualitative study in Bangladesh showed that while communities were able to identify the symptoms of malnourishment in infants, distance, **the cost of transport and treatment, and the time cost (particularly for mothers with household and care responsibilities), and perceptions about the severity of illness kept families from seeking care.** The study noted that while community members valued community-based services that were easier to access, hospital-based care was often perceived to be superior. The study highlights earlier research which found that despite referral to inpatient care for SAM for infants under six months, most caregivers did not go, even when they were supported with transport costs (Arafat et al, 2016).

b. Children under five & women from pastoralist, agro-pastoralist and nomadic groups

There is strong evidence of high malnutrition rates amongst pastoralist and nomadic groups, and nutritional disadvantage compared to other groups. For example, in Ethiopia, the prevalence of acute

malnutrition among nomadic children under 5 in the Afar region (11.8%) was higher than the national average, and twice as high as districts in southern Ethiopia (Gizaw et al, 2018). A 2014 study across 56 villages in northern Tanzania found that three times as many Maasai children were stunted (57%) as ethnic Meru children (21%), and twice as many were stunted compared to ethnic Sukuma children (32%). More than three times as many Maasai children were also wasted (10%) compared to any other ethnic group (2-3%) (Lawson et al, 2014).

However, a study of 291 surveys undertaken from 2007 to 2016 in Somalia (Martin-Canavate, 2020) showed low stunting levels amongst pastoralist children (below 5%), hypothesising that the tall and lean physical stature of Somali pastoralists may mask actual estimates of chronic malnutrition, or that because pastoralist groups have access to animal products, especially milk and cow's blood, these provide high protein diets even when food is scarce, and support height growth rather than soft tissue (Martin-Canavate, 2020).

Sedenterisation has also led to poorer dietary diversity and micronutrient deficiencies. A longitudinal study with two pastoralist communities in Samburu, Kenya found that the participants received about half their energy intake from maize, followed by sugar (13%), and milk (11%). They had a high probability of Vitamin A, B, and C deficiency, with a livestock ownership they key protective factor against Vitamin A, B and zinc inadequacies (Iannotti and Lesorogol, 2014).

In line with the broader evidence base on the determinants of malnutrition, pastoralist groups are often also poorer, and less educated or literate than groups with better nutritional indicators. The Lawson et al (2014) study found that 68% of Maasai male household heads had no formal education at all, while 84% of Meru male household heads had completed at least primary education. On average, the Maasai were the poorest group, and had the highest proportion of female-headed households (39%). In Ethiopia, Gizaw et al, 2018 found that 87% of the mothers in their study had limited literacy. In Kenya, Iannotti and Lesorogol, 2014 found that household income, education of the head of the household, and cattle and chicken ownership was a key predictor of dietary diversity..

Rural communities and groups that rely on agricultural as a source of food, as well as a source of income for food and non-food expenditures, are vulnerable to seasonal risks and land degradation and find themselves increasingly sliding into food insecurity. In the Tanzania study (Lawson et al, 2014), children living in wetter villages had substantially higher HAZ, and Maasai pastoralists were found to live in the driest villages overall, while Meru households lived in the wettest villages. Food insecurity was also found to be particularly severe for the Maasai, and was reflected in children's lower intake of carbohydrate-rich staple foods, meat, fish, fruits, leafy green vegetables and egg. In Somalia, pastoralist diets become particularly restricted during the dry season, when men and adolescent boys migrate with the livestock to other grazing areas, leaving women and young children behind with limited access to milk and other animal source products. Malnutrition rates are at their highest when the rains begin at the end of the dry season (Martin Canavate et al, 2020; Mayanja et al, 2015; Manners, 2014). In Uganda, Mayanja et al (2015) note that pastoralists are more likely to move into food insecurity in the dry season than agro-pastoralists, and to have a greater proportion of extremely food insecure households.

Climate change – manifested as increasing droughts, reduced rainfall and unpredictable climate patterns – is impacting agricultural livelihoods and further undermining poor groups' economic capacity and food security (Manners, 2014, Wayua, 2017). These impacts include loss of livestock, food price rises, reduced access to food and markets, and decreased access to water, and have made it harder for communities to recover from more typical shocks (Manners, 2014).

In order to diversify their livelihoods and even ensure quality education for children - some pastoralist communities are choosing to settle, and this too is having inter-related impacts on nutritional outcomes. On the one hand, pastoralist communities have greater access to literacy, and knowledge of health, nutrition and hygiene (Manners et al, 2014). On the other hand, for example in Tanzania, there has also been a shift in diets from livestock-based products, wild foods and homestead crops to a reliance on staple foods, and processed foods such as refined maize meal and chips that can be affordably purchased at the market, as traditional diets of meat and milk are too expensive (Ripkey et al, 2021).

The same qualitative study also found that settled communities reported reduced profit from cattle sales; reduced profit from milk sales; increased market price of staples; reduced number of meals; reduced

intake of healthy foods; increased human disease; increased stress; and increased incidence of nutrition-related non-communicable diseases. Participants also noted that the reduction in their consumption of wild foods is also related to the increasingly limited access to public lands, much of which has been allocated for farming when it was previously left untended.

The impacts of recurrent drought have also affected women's workloads, and in turn maternal health and their ability to care for young children (Manners, 2014). In Tanzania, women have tried to supplement household income from decreasing milk and animal produce sales by engaging in small business activities, like selling bread and charcoal Ripkey et al, 2021). When men from both pastoralist and settled communities migrate - women are left to manage the homestead and look after the children – often with limited access to food (Manners, 2014). A 2019 study in Tanzania found some evidence that women's control over assets and income could support dietary diversity by increasing women's ability to produce or purchase more diverse, more nutritious foods, that they could retain for their and their children's consumption (Galié et al, 2019). Even here, gendered considerations in relation to women's economic empowerment apply – the study shows that when milk production and sales increase, then men can tend to take control.

Access to safe water (Kenya) as well as the availability of latrines, and hygiene practices (Ethiopia) were found to be key factors affecting acute malnutrition (Manners, 2014, Gizaw et al, 2018). In addition, in Ethiopia, Gizaw et al (2018) found that 56.3% of households fed children uncooked foods, 93.2% households used unclean, 91.2% used leftover foods, and 54.8% of mothers washed their hands with only water.

There is also evidence across the risk groups, including pastoralist groups of the impacts of cultural beliefs and practices relating to women's diets when pregnant. Wayua (2017) found that in Kenya, pregnant women consume restricted diets in the belief that this will support easier delivery. This leads to low birth weight, which is estimated at 13% among some pastoral groups.

c. Children and adolescents with disabilities

The evidence on the links between disability and under-nutrition is mixed, with just over half the studies (nine studies in total; 80% of the studies from South Asia and 50% of studies from sub-Saharan Africa) included in a recent systematic review showing a positive association between childhood disability and undernutrition (Hume-Dixon and Kuper, 2018). In terms of the state of the evidence it is useful to note that the broad-ranging nature of disability, and the multiple pathways through which the day to day experiences of stigma and discrimination among people with disabilities might affect nutritional outcomes makes it difficult to draw clear conclusions (Jones, 2018).

Nonetheless, there is evidence that children with disabilities are more likely to be stunted, wasted and underweight. A pooled analysis by the Hume-Dixon and Kuper (2018) review found that children with disabilities were almost three times more likely to be underweight, and nearly twice as likely to experience stunting and wasting, compared to controls. Amongst more recent studies, a 2019 case control study from Bangladesh found that cases had 6.6 times and 11.8 times higher odds of being severely underweight and severely stunted than controls (Jahan et al, 2019). And yet, a 2021 study from rural Karnataka, India found that even though children with disabilities consumed significantly less calories and protein than children without disabilities, the prevalence of underweight was similar between the two groups (Jacob et al, 2021).

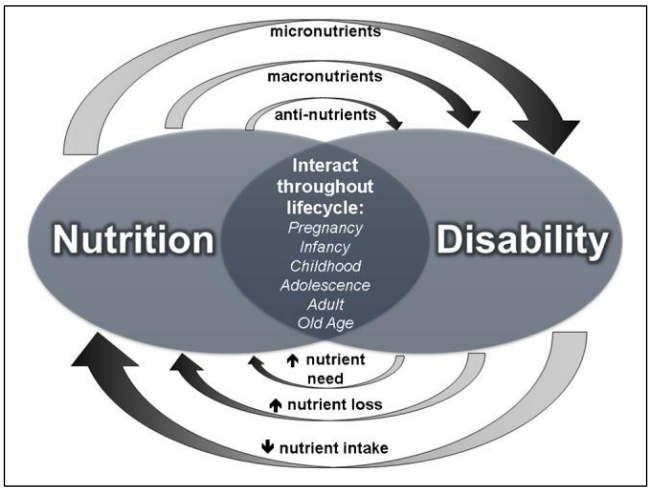
Children with disabilities may face increased risks of mortality from malnutrition. A 2020 study from Malawi (Lelijveld et al, 2020) which followed children discharged after treatment for SAM over a seven-year period found that children with disabilities were at almost seven times greater risk of dying than those without a disability. Over the longer-term, survivors with disabilities were found to be more stunted, had less catch-up growth, smaller head circumference, weaker hand grip strength and poorer school achievement than survivors without disabilities. Only 11 of the original 60 children with disabilities in the study were known to have survived seven years later.

The evidence on the links between disability and under-nutrition varies by the type of disability in question. The Hume-Dixon and Kuper (2018) review found that 44% of the studies focussed on neurodevelopmental disability, 60% on general disability and 67% of studies on hearing impairment found positive associations. There is relatively stronger evidence from sub-Saharan Africa on the links between cerebral palsy and under-nutrition (Kerac et al, 2014; Lelijveld, 2020). A 2019 study of children registered on the Bangladesh Cerebral Palsy Register found that 70% of children were underweight and 73.1% were

stunted, significantly higher than the national average (Jahan et al, 2019a). The Lelijveld et al study (2020) found that mortality for children with cerebral palsy and hydrocephalus was particularly high. A 2019 study in Vietnam found that underweight and/or stunting was high among children with quadriplegia and/or reduced gross motor skills. In addition, nearly one-third of intellectually impaired and more than half of hearing-impaired children were underweight and/or stunted (Karim et al, 2019)

Various studies have emphasised that malnutrition may be both a cause and effect of disability and the relationship between the two operates through the life course, in different ways at different points (Kuper et al, 2015). as charted by Kerac et al (2014) in Fig, 1 above. Malnutrition may increase the risk of illnesses, such as rickets or meningitis, that could cause disabilities (Hume-Dixon and Kuper, 2018). Maternal malnutrition can also lead to disabilities in children, for example folic acid deficiency can cause neural tube disorders; maternal iodine deficiency can lead to impaired cognitive function; and vitamin A inadequacies can lead to blindness (Groce et al, 2013, Kerac et al 2014).

Figure 7. Interactions between nutrition and disability (Kerac et al, 2014)



Some studies have sought to understand the broader determinants of poor malnutrition outcomes for children with disabilities. Underweight and/or stunting among children with disabilities in Bangladesh was significantly associated with parental education, socioeconomic status and mainstream school attendance (Jahan et al, 2019). In Vietnam, the odds of underweight were significantly higher among children older than 5 years; and/or from households with a monthly family income of less than $50 (Karim et al, 2019).

Few studies disaggregate their findings by gender, or look specifically at the risks for girls with disabilities, those who live in rural, urban poor or humanitarian contexts, or are from ethnic or indigenous groups. Hume-Dixon and Kuper (2018) find that most of the studies in their review were focussed on urban areas, and almost all included more boys than girls. A 2015 case control study from Turkana, Kenya (Kuper et al, 2015) - which was experiencing chronic food insecurity at the time - found malnutrition to be prevalent across the cases and controls. For children under the age of 5 however, general malnutrition was found to much more prevalent among cases (55%) sibling controls (35%) and neighbour controls (27%) than for children in Kenya as a whole (16%). Wasting was also more prevalent in the study samples (33%, 23%, 20%) than in Kenya overall (7%).

The literature demonstrates that children and adolescents with disabilities are subject to intersecting and compounding forms of discrimination and disadvantage which affect their diet and health-seeking practices (Holden and Corby, 2019). The Lelijveld et al (2020) study, for example, found that children with disabilities admitted for SAM treatment were often older, and more severely malnourished at admission, and it is likely this was a due to a combination of factors.

- *The knowledge, attitudes and capacities of families, caregivers, peers and society at large.* Families with limited understanding of disability may not identify a child's needs early on. The caregivers of children with feeding difficulties may not have the skills, time, or access to appropriate foods or adaptive tools to manage these (Kirk, 2021). Neglect and lack of care may also be a factor – there is evidence of families choosing not to breastfeed babies with visible disabilities, and of children or adults with disabilities being denied food or offered less than other household members (Groce et al, 2013). In Kuper et al's 2015 study in Kenya, children with disabilities aged 5+ were found to be much more likely not to attend school than neighbour controls (and thus less likely to benefit from school feeding programmes).

  In Palestine, where disability is stigmatised and large families means caregivers are often stressed, nearly one-third of parents reported that their children with disabilities ate less than their children

without disabilities. 13% of families reported that their children with disabilities had poor nutritional status (Jones et al, 2018). In Kenya, even if children with disabilities were enrolled in school, they were less likely to be included in school feeding programmes (Kisia et al. 2014, cited in Jones et al, 2018).

- *Barriers to accessing support and services.* These include the physical inaccessibility of health and education facilities; the centralisation of specialist services, often in urban areas; the inaccessibility of nutritional media campaigns; a lack of effective and appropriate screening tools; and exclusion from mainstream education and school feeding programmes (Holden and Corby, 2019). Kuper at al's (2015) study in Turkana for example found that children with disabilities, because they were not enrolled in school, did not benefit from a World Food Programme school feeding programme, which was often the main meal of the day for children in the area.

  A 2021 scoping review also highlights that stigma on the part of service providers (which can manifest in a belief that malnutrition as a result of disability is inevitable) can lead to caregivers being turned away from services, and also that service providers often do not have the specialist expertise or time to identify disabilities early on, respond to the complex needs of children with disabilities or to implement nutrition-sensitive or nutrition-specific programming from a disability perspective (Kirk, 2021; Groce et al, 2014, cited in Holden and Corby, 2019).

d. Children in urban/ peri-urban slums or informal settlements

Various studies from across different regions have found that children living in urban slums are more likely to experience under-nutrition, particularly stunting outcomes, than children from non-slum areas and sometimes even rural areas (Goudet et al, 2019; Ernst et al, 2013). The Goudet et al (2019) review cites WHO data from 2016 that, on average, 25.24% of all children living in urban areas in LMICs are stunted, and argues that while estimates for stunting in slum areas in cities are not available, these are likely to be higher. The review cites a 2018 study from Dhaka, Bangladesh, for example, which found that 48% of children were stunted at 24 months of age, and a 2012 study from Pune, India, which found that 58.7% of children under 5 were stunted. A 2011 study from Kenya also found that 47% of children in informal settlements in Kibera were stunted, compared to the 28.5% 2008 national average (Olack et al, 2011). A 2019 study in urban slums in Mumbai found very high levels (76%) of anaemia amongst 10-18 month children (Huey et al 2019). It is widely recognised that while national level data often shows lower prevalence of malnutrition in urban areas compared to rural, this often marks disparities within urban and rural areas (Tuffrey and Espeut, 2015).

In most studies in the Goudet et al 2017 review, boys were found to be more malnourished and stunted than girls, and more at-risk of being underweight and moderately wasted than girls. Whilst the Huey et al (2019) study found a similar trend, it also found that female children had a 40% higher chance of anaemia associated with diarrhoea, while male children who were first born had a 20% lower risk. One study from Gujarat, India found that the prevalence of malnutrition was higher in female children. A 2017 study from Lahore, Pakistan also found that chronic energy deficiency was highly prevalent amongst adolescent girls, and that 58% were underweight (Hassan et al, 2017).

Urban populations' dependence on the market shapes their diet quality and diversity, and rises in food prices, and households' coping mechanisms in response can have additional impacts on nutritional outcomes. Low-income urban households are often highly dependent on food purchase (which takes up a large part of the overall household budget) and so are particularly vulnerable to food price rises. In response, households may resort to sending more family members out to work including lactating women (see more on the implications of this in the point below) (Tuffrey and Espeut, 2015).

Another way of contending with higher food prices is often to decrease dietary quality, followed by a decrease in quantity if required. The former strategy involves relying on high-carbohydrate staple foods, such as rice, maize or cassava, over more expensive fruits, vegetables and animal source foods. However, if eaten predominantly on their own, staple foods cannot provide adequate protein, fats and micronutrients, and thus increase risk of stunting (Meerman and Aphane, 2012).

Meerman and Aphane (2012) also argue that women can often act as the 'shock absorbers' in such instances, for example consuming less so that the impacts on children and other household members can be mitigated, as well as spending more time providing additional care for children, the sick and elderly. This can have implications for their maternal health and immediate and long-term repercussions in terms

of maternal and (consequently) intergenerational malnutrition. In addition, female headed households, which tend to have lower incomes and already poor-quality diets are also more vulnerable to shocks.

Food prices are also linked to over-nutrition, as urban households turn to street food as a cheap and easily available option. Street foods are often high in calories, starch and fat, but low in protein and micronutrients. In addition to contributing to the multiple burden of malnutrition (i.e. obesity and micronutrient malnutrition) unhygienic preparation can also increase the risk of disease (Meerman and Aphane, 2012; Tuffrey and Espeut, 2015).

Maternal education or literacy is also considered one of the most important risk factors shaping child nutrition in urban slums. In the Goudet et al (2017) systematic review, all the studies reviewed but one found that the risk of stunting, wasting, and underweight was higher when the mother's education was less than or equal to 6 years of primary school education, or the level of literacy or schooling was lower. The review cites a study from Indonesia, where high levels of maternal and paternal education were both associated with protective caregiving behaviours, including vitamin A capsule receipt, complete immunisations, better sanitation, and use of iodised salt. Interestingly, a 2015 study from Bangladesh found that better maternal literacy improves health of male children at the cost of the health of female children (Fakir and Khan, 2015).

Various studies, mainly from East Africa, focus on the linkages between women's employment and childcare practices. For example, a 2020 study amongst informal women workers in Kampala, Uganda found the prevalence of exclusive breastfeeding was 42.8%, below the national prevalence of 66% (Nabunya et al, 2020). These studies highlight that women tend to work and commute for long hours, and in less secure jobs and often do not benefit from labour regulations, or social and medical benefits. This affects their ability to breastfeed, and to prepare food and care for children, especially for those women who do not have family support (Nabunya et al, 2020, Mohiddin et al, 2012; Kimani-Murage et al, 2014).

A 2016 qualitative study in informal settlements in Nairobi suggests that because working mothers are either not able to take maternity leave, take their children to work whilst breastfeeding, or access quality childcare services, they often discontinue breastfeeding or introduce complementary foods too early (Goudet et al, 2012, 2016). The Nabunya et al (2020) study found that the prevalence of exclusive breastfeeding among women who worked in lower-paid jobs, for example as cleaners, assistants, waitresses, and salespeople, was 32% less compared to that among women who those owned businesses. The same study also found that the prevalence of EBF was 24% higher among women who attended at least four ANC visits compared to those who went less.

A 2012 study in a peri-urban township near Yangon, Myanmar found that most mothers worked long hours outside the home, leaving their infants in the care of grandmothers and mothers-in-law. Most respondents had gone back to work one and a half to two months after delivery; the poorest often had to go back within two to four weeks of delivery. Levels of EBF were extremely low (8.9%) and inappropriate complementary feeding – with food introduced as early as 2 weeks, and low frequency and diversity in feeding – was common. Poorer women reported not being able to afford food rich in micronutrients and fed their children only rice, salt and oil (Le Cuziat, 2012, cited in Tuffrey and Espeut, 2015).

It is important to note here that evidence, policy and programming discourses tend to put forward characterisations of women solely as workers, or solely as mothers, rarely acknowledging that that they often fulfil both roles. In fact, there is considerable evidence that urban women shape their work around their family and childcare responsibilities, even where such strategies can reduce their income and food security (Quisumbing, 2003).

Other studies have also emphasised the importance of social support networks, which can be particularly lacking for recent migrants (Tuffrey and Espeut, 2015). A 2017 study in Lahore found that adolescent girls who lived joint families and were more frequently food insecure had lesser odds of having poor nutritional status than those who lived in nuclear families and were food secure (Hassan et al, 2017)

Informal settlements and slums are often characterised by overcrowded housing, dense populations, limited basic services and poor sanitation, contaminated drinking water – all of which contribute to increased risk of infection and disease (Olack et al 2011). Goudet et al, in their 2017 study found that diarrhoea was the most reported illness associated with malnutrition, although this could also be because it is the most studied morbidity indicator. Goudet et al's (2016) qualitative study in Nairobi identified WASH as one of the key risk factors for children's nutritional health.

e. Children under five and women from marginalised ethnic groups, tribal groups and indigenous groups

There is significant evidence in the literature that children and women from ethnic, indigenous and tribal groups experience high rates of stunting and wasting. Some of the key findings from the evidence reviewed are as follows:

- In Vietnam, malnutrition prevalence amongst the Muong and Tay ethnic groups was 3.5 times higher and 4.6 than majority Kinh children (Le et al, 2016).
- A 2019 study of 48 countries found that children from ethnic groups have 2.8 times higher rates of stunting and six times higher rates of wasting than their peers (Rumsby and Richards 2019).
  - For example, in Nigeria 52% of Hausa ethnicity children are stunted, compared to 14% Igbo children.
  - In Ghana, 33% of Gruma ethnic group children are stunted, compared to 10% of children from the Ga/Adangbe ethnic group.
  - In Cameroon, 11% of Biu-Mandara ethnicity children are wasted, compared to 1% of children from the Bamilike ethnic group.
  - In Ethiopia, 24% of Nuwe ethnicity children are wasted, compared to 3% of Kefficho ethnicity children.
- The prevalence of anaemia among 1 to 5-year-old children from the Khasi tribe in north-east India was 68%; 70% amongst pregnant women; 86% among lactating mothers; and 83% among nonpregnant and nonlactating women (Chyne et al, 2017).
- Ethnicity was also found to be a key determinant of a child's overweight by the Rumbsy and Richards (2019) study, with some children 15 times more likely to be overweight than their peers of another ethnicity.

Inequalities also appear to be increasing in many countries, however there are also examples of countries that have succeeded in narrowing the gaps. Since 2000, ethnic inequalities in stunting increased in ten out of 21 countries, and in wasting in 14 out of 20 countries in the Rumsby and Richards 2019 sample. A 2019 study from Guatemala (Gatica-Dominguez, 2019) found that while overall stunting prevalence had declined there between 1995 and 2014, children in rural areas were still more stunted than urban children, and rural, indigenous children – particularly those in the poorest third – were significantly worse than any group, with levels similar to what nonindigenous children presented in 1995. Yet some countries have made progress in reducing these inequalities, for example in Kenya, stunting inequalities between the Mijikenda/ Swahili and Kikuyu groups decreased from a ratio of 1.7:1 to 1.6:1 between 1998 and 2009 (Rumsby and Richards 2019).

As with the groups living in remote rural areas, instead of a stand-alone variable, ethnicity combines with geographical inequalities, poverty and a lack of access to services to determine nutritional outcomes. Rumsby and Richards (2019) cite data that 32%–37% of children under 5 living in regions dominated by ethnic minority groups are stunted, while prevalence among children in areas dominated by the Kinh majority group is between 21%–23%. A 2020 study from Nepal found that non-Dalit caste/ethnic groups living in the Terai, and Muslim adolescents had increased stunting odds, contrary to earlier findings that living in the hill and mountain areas is associated with stunting. The authors argue that their findings correspond with national data on lower use of health services, poorer health outcomes, and lower levels of early initiation of breastfeeding among Terai caste/ethnic groups and Muslim communities than Brahman/Chhetri, Newar, and Hill Janajati women (van Tuijl, 2020). Results of a likelihood ratio test indicated that distance to a health centre was inversely associated with HAZ among tribal children ($p < 0.001$). (Sinharoy et al, 2017)

Besides loss of livelihood, systemic issues such as exclusions in public distribution system and weakening of public nutrition programmes have aggravated the undernutrition problem. In our sample, one-fifth of the tribal families did not receive ration through public distribution system in Vik- ramgad due to non-possession of the card. Ghosh and Varekar, 2019.

In their study amongst tribal groups in India, Ghosh and Varekar, 2019 argue that one-fifth of their sample were excluded from receiving rations through the public distribution system because they did not have the required documents.

Some studies explore diet quality as a key immediate determinant of malnutrition. A 2019 study in Maharashtra, India, for example, found high levels of stunting, underweight and wasting, showed that only

13% of tribal children achieved a minimum level of diet diversity. 83% of the children had consumed food belonging to only three groups, and the most common was rice and dal, with almost no intake of leafy vegetables, fruits, milk and milk products, flesh food, fish and eggs (Ghosh and Varekar, 2019). Data from an evaluation of the Alive & Thrive project in Vietnam showed that fewer ethnic minority children received minimum acceptable diets (33–52 %) than Kinh children (75 %). Compared to the Kinh group, ethnic minority children consumed fewer legumes and nuts, dairy products, flesh foods, and vitamin-A rich fruits and vegetables (Nguyen et al, 2016).

Poverty amongst ethnic minority groups emerges as a key driver of child malnutrition in a number of studies including the following:

- The 2016 Vietnam study - which found that 52% of ethnic minority children aged five to 12 were stunted, compared to 14% of their Kinh counterparts – also found that in 2012 these communities accounted for about two-thirds of the country's poorest 10%, with many ethnic minority families facing food insufficiency for two to three months a year (Le et al, 2019**).**
- A study amongst the Bodo indigenous group in Assam, India found that the odds for thinness was found to be significantly 1.57 times greater risk among children belonging to lower household income households (Mondal et al, 2015).
- A 2021 study amongst the Satar ethnic group in Jhapa, Nepal found that children under 5 from households living below the poverty line (i.e. earning less than $1.90 a day) were 11 times more likely to develop SAM (Dahal et al, 2021).
- The Nepal study also found that children who were breast fed less than eight times a day had more than twice the risk of developing SAM, with the authors suggesting that low frequency of breastfeeding could because household poverty compels lactating mothers to work, and the lack of adequate nutrition in women impacts their milk production.
- Among Bengali tribal children, height-for-age was positively associated with consumption of animal source foods and goat ownership (Sinharoy et al, 2017)

A small number of studies suggest a link between household air pollution and child nutrition. A 2019 study in Nepal (Lamichhane et al, 2019) finds some tentative linkages between the use of fuels such as wood, agricultural waste, dung, charcoal and kerosene by Dalit groups, and increased stunting, wasting and underweight, and suggests that further research to explore the interdependent linkages between household air pollution household socio economic status, caste/ ethnicity and child undernutrition. A 2016 study amongst indigenous communities living predominantly in remote, hilly, forest areas in eastern India found high levels of stunting and evidence that cooking outdoors might be a key protective factor. The authors speculate this may because pregnant women and children are less exposed to biomass fuel smoke, and the associated risk of acute respiratory infections, which can lead to stunting, and possibly low birth weight (Saxton et al, 2016).

Most studies that reported gender disaggregated findings found that boys tended to be more at-risk of underweight, wasting and stunting (see below). In their Nepal study, van Tiujl et al (2021) suggest that higher thinness odds might be explained by boys' increased energy expenditure due to their participation in labour activities, possibly alongside school enrolment (van Tiujl, 2021).

- A 2015 study amongst school-going children from the Bodo indigenous community in Assam found that boys had a significantly greater risk (1.09 times) of being thin than girls (Mondal et al, 2015)
- A 2020 study in Nepal found that boys were more at-risk of stunting and thinness than girls. Stunting increased with age, while thinness odds decreased with age (van Tiujl, 2020). Higher thinness odds might be explained by boys' increased energy expenditure due to more participation in labour activities, possibly in combination with school enrolment (van Tiujl, 2020)
- Among the Khasi tribe in north-east India, the prevalence of undernutrition was higher among boys than girls (Chyne et al, 2017).
- One study amongst primary schoolchildren in Karnataka, India found that tribal girls tended to be less underweight than boys (Seshadri et al, 2016).

However, a 2020 study amongst the Rabha tribal community in Assam found that 33% of under 5 children were stunted, 27.56% were wasted and 30.22% were underweight – and that the prevalence of malnutrition was more common in girls as compared to boys (Das et al, 2020). In Nepal, households with more earning members were also associated with decreased odds of stunting in all but the female and older population. The authors suggest this is because of the 'buffer hypothesis' – where, in the face of food insecurity, women and older household members reduce their intake in favour of men and younger household members buffer men and younger household members (van Tuijl, 2020).

A number of studies from India observe the protective impact of tribal populations' consumption of wild forest foods. A study with the Chakhesang tribe in the state of Nagaland, North-East India, for example, found low prevalence of acute malnutrition and severe anaemia amongst children under 5, and only mild to moderate food insecurity. The authors suggest that utilization of the rich agrobiodiversity and wild foods by the Chakhesang appears to be a strong reason for their better nutritional and health status as compared to the rest of India (Longvah et al, 2017). In Lao PDR, 56% of mountainous ethnic groups in the Boulom et al (2016) study were found to collected between four and seven types of foods from the forest.

Indigenous wild foods can be rich sources of micronutrients (Ghosh-Jerath et ao, 2021), however, the impacts of climate change on agroforestry systems, easy access to foods bought from markets or distributed through government food security schemes, the use of land for export crops, the promotion of hybrid seeds by local agricultural organisations, and limited knowledge about the health benefits of forest foods are key barriers to production diversity (Chyne et al, 2017, Brown et al, 2014).

A number of studies point to maternal, and to a lesser extent paternal, education as a key determinant of child nutrition (Dey and Bisai, 2019). In India, nutritional deficiencies were found to decrease steadily with rising education of the mother. The percentage of children who were underweight was more than three times as high for children whose mothers had no education than for children whose mothers had completed above primary level education. The educational differentials were almost as large for wasting (Das et al, 2020). Limited knowledge and awareness of nutrition – particularly in relation to care for children and expectant mothers in mountainous areas are also cited as key factor (Rumsby and Richards, 2019).

f. Internally displaced persons, refugees and returnees

In some contexts, refugees and internally displaced groups experience very high prevalence of stunting, underweight and wasting (Islam et al, 2018; idowu et al, 2020; Ajakaye and Ibukunolowa, 2020; Kinyoki et al, 2017)**.** Various studies have noted the links between malnutrition and conflict-induced displacement and migration (Iacoella and Tirivayi, 2020; Cumber et al, 2017; Kinyoki et al, 2017).

- A 2018 study amongst Rohingya refugees in Cox's Bazaar, Bangladesh found that prevalence of stunting, underweight and wasting was 64.9%, 85.96% and 82.46% respectively, with 62% and 68% severe stunting and severe underweight respectively (Islam et al, 2018).
- In displaced persons' camps in Abuja, Nigeria, prevalence of underweight, stunting and wasting was 42%, 41% and 29.3% respectively, with underweight and wasting significantly higher than the national average (Idowu et al, 2020). A study in Edo state found stunting rates of 39.2% (Ajakaye and Ibukunolowa, 2020). The incidence of conflict - as a driver of displacement – was found to be associated with a 57% increase in the likelihood of acute malnutrition among children in Yobe state (Iacoella and Tirivayi, 2020).
- A 2017 study in Somalia found that IDP communities were at 1.37 times greater risk of wasting than agro-pastoral communities, and 1.91 ties greater risk of stunting (Kinyoki et al, 2017).
- Idowu et al (2020) in their study in IDP camps in Abuja, Nigeria found that prevalence of underweight and stunting, but not wasting, was higher among boys than girls under 5.

There is also evidence of a high prevalence of the double burden of over- and under-nutrition amongst Palestinian refugees, believed to be driven by poverty and food insecurity in camps, and a reliance on high-carbohydrate and fatty foods.

- A 2016 study in the Gaza Strip, Palestinian Territories found that 25% of mother-child pairs were overweight mother/ underweight child (OWM/ UWC), and 48.1% were overweight mother/ normal weight child (OWM/NWC). The majority (64.3%) of OWM/ UWC pairs in the Jablia refugee camps (El Kishawi et al, 2016).
- A 2018 study amongst Palestinian refugee women in the West Bank found that 76% were overweight/obese, and the prevalence of overweight/ obesity amongst adolescent girls was 38.2% (Massad et al, 2018).

Children in refugee camps are also highly vulnerable to iron deficiency anaemia and other micronutrient deficiencies. A 2016 study in Kebribeyah refugee camp in Ethiopia found that prevalence of anaemia amongst children under 5 was 52.4% (Jamal and Haidar, 2016). A 2020 study in IDP camps in Nigeria found that 54% of the children under 10 years were anaemic (Ajakaye and Ibukunolowa, 2020).

The study also found that 8.5%, 48.1% and 16.3% of children aged 18–29 months had mild, moderate and severe anaemia respectively, suggesting that late infancy and early childhood are high-risk periods for iron deficiency. Amongst Syrian refugees in Jordan, a 2016 study found that while the prevalence of acute malnutrition among children under 5 was low (less than 5%), anaemia prevalence in the Za'atri camp – albeit mild or moderate - for both children and non-pregnant women, was 48.4 % and 44.8 %, respectively (Hossain et al, 2016).

Poverty, in the form of limited assets, amongst displaced populations is considered a key determinant of reduced food consumption and dietary diversity, and increased hunger. In their study of communities displaced by Boko Haram violence, Iacoella and Tirivayi (2019) found that in contexts where there is heightened risk of famine, as in the Boko Haram conflict zone within the Lake Chad basin area, and given their limited physical and social assets, IDPs are more likely to reduce their dietary intake. A 2020 study also found that 70% of Palestinian camp residents in Jordan – where stunting levels are particularly high - were in the poorest two wealth quintiles, and unemployment levels were also high. The study argues that refugees' low asset base, followed by parental education, is the main driver of the height gap between Palestinian refugee and Jordanian children (Rashad et al, 2020).

The environmental conditions of refugee settlements and camps, which can include overcrowding, lack of clean drinking water and poor sanitation have been shown by studies in Sudan and Uganda to increase the risk of illnesses, such as diarrhoea, which are further associated with acute malnutrition (Gezahegn et al., 2017). The Rashad et al (2020) study amongst Palestinian refugees in Jordan argued that refugees' lack of access to clean drinking water was another significant factor that contributes to the height gap.

Sub-optimal breastfeeding practices, and the introduction of complementary foods before 6 months have also been found to increase wasting among refugee children in Sudan (Idowu et al, 2020; Gezahegn et al, 2017). Displaced mothers, whose own nutritional intake may be reduced, may have reduced breastmilk (Akseer et al, 2018). The use of breast milk substitutes by mothers in refugee and displaced settings is driven by a range of influences: medical advice; the distribution of substitutes as part of humanitarian aid; aggressive marketing from infant formula companies; lack of lactation counselling to mothers; and as a response to the stress associated with exclusive breastfeeding during conflict and displacement Rabbani et al, 2020; Akseer et al, 2018).

Lack of access to quality health services - either due to the deterioration of the health system within conflict contexts, lack of health staff, financial or distance barriers, and/ or weak service delivery within camps – has been found to impact both infant and young child caring practices as well as health seeking for sick children (Gezahegn et al, 2017; Akseer et al, 2020, Idowu et al, 2020). A 2020 study in northern Uganda of nutrition services of refugee populations found that average cure rates for severe acute malnutrition in children were significantly below the minimum SPHERE standards (50.4% vs 75%), with a higher default rate (23.2% vs 15%, and 43.3% had limited human resources. A 2018 study found that Rohingya families in Bangladesh are reluctant to access healthcare because of language issues, cost barriers and fear they may be detained by the authorities (Islam et al, 2018).

Annex 3: Summary tables on effective strategies, according to at-risk group

Annex Table 3a: Description of evidence on effective strategies for nutritionally at-risk groups

Web-based searches were conducted using the following inclusion criteria: (1) *Reference period (*Resources produced between 2015 and 2021); (2) *Language* (English-language resources only); (3) *Geographical scope* (Least developed, low-income and low-middle-income countries and territories); and (4) *Publication type* (Both peer-reviewed journal articles and grey literature). Strategies described in Sections 3.2.2. and 3.2.3 of the guidance were identified via a literature review of a quality subset of reports/documentation/articles that met the above inclusion criteria -AND- basic quality standards. The type of methodology used to generate evidence on strategy effectiveness (e.g., randomised controlled trial, quasi-experimental or mixed-methods evaluation design, descriptive study only) was the primary criterion for determining the rigor/quality of the evidence. Further descriptors appear in the table below, presented according to at-risk group.

AT-RISK GROUP	'SAMPLE SIZE'	DESCRIPTION OF THE LITERATURE EXAMINED			
	NO. OF PUBLICATIONS	REGION	MEASURES OF EFFECTIVENESS	CERTAINTY OF EVIDENCE	
			Nutritional status, nutrition determinants, or both?	**Evaluation design**	**Statistically significant findings?**
1. Deeply rural/physically remote/ isolated	7	• 6 from Africa • 1 from Latin America	• 3 on both nutritional status and nutrition determinants • 4 on nutrition determinants only	• 6 had control(s) • 1 had comparison	5 of 7 publications
2. Urban poor	6	• 3 with global/ multi-country purview • 2 from Asia • 1 from Africa	• 4 on both nutritional status and nutrition determinants • 2 on nutrition determinants only	• 1 had control • 2 had comparison(s) • 4 had neither	4 of 6 publications
3. Children and adolescents with disabilties	*5 (1 systematic review)*	• 2 with global/ multi-country purview • 3 from Africa	• All 5 focused on improving nutrition determinants	• 1 had control(s) • 4 had neither	3 of 5 publications
4. Pastoralists/ and nomads	5 *(5 systematic reviews)*	• All 5 from Africa	• 2 on both nutritional status and nutrition determinants • 3 on nutrition determinants only	• 1 had comparison • 4 had neither	3 of 5 publications
5. Ethnic and indigenous groups	6	• All 6 from India	• 2 on both nutritional status and nutrition determinants • 3 on nutrition determinants only	• 2 had controls • 3 had comparisons • 1 had neither	4 of 6 publications
6. IDP/refugee/ returnee groups	17 *(2 systematic reviews)*	• 10 from Africa • 4 from MENA • 1 from Asia • 2 multi-region	• 5 on both nutritional status and nutrition determinants • 6 on nutritional status only • 6 on nutrition determinants only	• 8 had control(s) • 2 with comparison(s) • 7 had neither	11 of 17 publications

Annex Table 3b: Summary table on types of strategies identified in the literature, according to at-risk group

INSIGHTS FROM THE LITERATURE ON EFFECTIVE STRATEGIES	AT-RISK GROUP					
	Deeply rural, physically remote, and/or isolated groups	**The urban poor (e.g., in slums or informal settlements)**	**Children and adolescents with disabilities**	**Pastoralists/ agro-pastoralists and nomadic groups**	**Children & women from marginalised ethnic groups or indigenous groups**	**IDPs, refugees, and returnees**
CAVEATS/ LIMITATIONS IN LITERATURE:	Limited recent data; many rural nutrition programmes exist but remoteness/ inaccessibility of communities often excluded them from interventions/ programmes, even when they were known to have a higher malnutrition burden	Limited recent data that met our inclusion criteria	Very weak evidence base (limited recent data that met our inclusion criteria) most literature from N. America and upper-/upper-middle-income countries among LMICs, documented strategies from Africa outcomes (measures of effectiveness) largely self-reported by caregivers	Limited recent data that met our inclusion criteria	Very limited recent evidence base All the literature that met the inclusion criteria for the literature review were from India; the majority originate from N. America and Australia	No major caveats or limitations
SECTORS:	Strong emphasis on social protection	Multiple sectors, especially health and nutrition and social protection, as well as nutrition advocacy	Multi-sectoral, with particular emphasis on child protection and health	Focus on several sectors including agriculture (kitchen gardens, animal transfers), health and nutrition, and social protection (cash transfers), as well as advocacy	Predominant focus on health and nutrition	Focus on a range of sectors: health and nutrition, social protection, WASH, and education
ENTRYPOINTS:	Virtual (mobile phone technology)	Community groups (women's/mothers' groups); community health volunteers (CHVs)	Community- and home-based delivery of interventions via community-based	Community groups (mothers' groups, savings groups), schools, markets	A focus on household access to diverse nutrient-rich foods, and community- and	A focus on refugee camps, as well as schools, community volunteers and healthcare facilities

INSIGHTS FROM THE LITERATURE ON EFFECTIVE STRATEGIES	AT-RISK GROUP					
	Deeply rural, physically remote, and/or isolated groups	The urban poor (e.g., in slums or informal settlements)	Children and adolescents with disabilities	Pastoralists/ agro-pastoralists and nomadic groups	Children & women from marginalised ethnic groups or indigenous groups	IDPs, refugees, and returnees
			parenting groups and trained health workers	and community volunteers	home-based outreach and behaviour change strategies on child nutrition	
PRIMARY TARGET:	Women/female caregivers	Mothers of children under five; pregnant and postnatal women; primary and secondary schoolchildren	Parents/carers of children and adolescents with disabilities	Mothers of children, prenatal and postnatal women; and primary and secondary school children	Parents of children under five; pregnant/breastfeeding women; and primary and secondary level schoolchildren	Parents of children under five; primary and secondary level schoolchildren; households with malnourished children
ULTIMATE BENEFICIARIES:	With time-limited nature of implementation and evaluation design, focused on assessing 'impact' on children under age two or three	Children under five; primary- and secondary-level schoolchildren; pregnant/breastfeeding women; other women of reproductive age	Children and adolescents with disabilities	Children under five; school-age children; pregnant/breastfeeding women; women of reproductive age; adolescent females	Children under five; primary and secondary level schoolchildren; pregnant/breastfeeding women, and women of reproductive age	Predominant focus on children under five and adolescent children, with a smaller proportion of studies focussed on pregnant/breastfeeding women and mothers of young children
TYPES OF INTERVENTIONS:	Behavioural component to several strategies, but emphasis on cash transfers and in-kind transfers (food, agricultural inputs): in 4 of 7 and 2 of 7 shortlisted	Health system strengthening related to referrals, immunisation; nutrition-specific services (growth monitoring, home-based nutrition counselling, micronutrient	Behavioural, with a focus on improved parenting and childcare	Cash transfers and animal transfers; use of mobile phones to access markets and facilitate improved nutrition; behaviour change interventions (nutrition	Food aid; supplementary feeding; agricultural inputs; and behaviour change strategies, with a focus on consuming indigenous foods, and improved	A range of interventions are addressed with a focus on supplementary feeding, micronutrient supplementation, cash transfers, behaviour change

INSIGHTS FROM THE LITERATURE ON EFFECTIVE STRATEGIES	AT-RISK GROUP					
	Deeply rural, physically remote, and/or isolated groups	The urban poor (e.g., in slums or informal settlements)	Children and adolescents with disabilities	Pastoralists/ agro-pastoralists and nomadic groups	Children & women from marginalised ethnic groups or indigenous groups	IDPs, refugees, and returnees
	studies/articles, respectively Did not address physical access barriers to healthy diets or health care seeking	supplementation, deworming, school feeding); community awareness-raising and capacity-building (training of CHVs); treatment of acute and severe malnutrition and common diseases; behaviour change (social ecology models, communication) to promote high-impact dietary and health practices/care seeking (e.g., infant and young child feeding, immunisation)		education); disease management (including but not limited to treatment of malnutrition); creation of home gardens; agricultural strategies for dairy intensification	community and parental awareness of child nutrition through participatory women's groups and counselling	strategies delivered through community volunteers and schools, and to a lesser extent food aid/distribution
NUTRITION IMPACT:	Documented effectiveness in increasing food expenditure and improving diets (dietary diversity, greater consumption of protein-rich foods, greater meal frequency) as the	Focus on multiple forms of undernutrition: stunting, wasting, underweight, low birth weight and anaemia; overweight/obesity addressed to a far less extent	Focus on 1) care (including but not limited to feeding practices) and 2) stigma and discrimination as nutrition determinants	Focus on multiple forms of malnutrition--stunting, wasting and underweight, low birth weight, anaemia--as well as overweight; some focus on specific nutrition determinants such as food security	Focus on 1) multiple forms on undernutrition in individual studies (stunting, wasting and underweight) and 2) a focus on dietary diversity and micronutrient intake	Focus on 1) multiple forms on undernutrition in individual studies (stunting, wasting and underweight) and 2) a focus on food consumption, diet quality and dietary diversity

INSIGHTS FROM THE LITERATURE ON EFFECTIVE STRATEGIES	AT-RISK GROUP					
	Deeply rural, physically remote, and/or isolated groups	**The urban poor (e.g., in slums or informal settlements)**	**Children and adolescents with disabilities**	**Pastoralists/ agro-pastoralists and nomadic groups**	**Children & women from marginalised ethnic groups or indigenous groups**	**IDPs, refugees, and returnees**
	main nutrition determinants			(availability and accessibility), diet quality and infant and young child feeding		
OPPORTUNITIES FOR FCDO:	(1) Temporal strategies (multiple studies highlighted the lean season); (2) embedding strategies within broader rural women's empowerment approaches; (3) complementary digital inclusion strategies in order to fully leverage mobile phone technology; (4) strengthened linkages to markets and health care (including services such as deworming and micronutrient supplementation) to support demand creation, and effect positive changes in nutritional status	Multi-sectoral approach/joint implementation of multiple strategies within a targeted location (e.g., specific slum) to address undernutrition through community-based strategies that address major nutrition determinants in those settings (e.g., WASH); health system strengthening in an urban context; multiple micronutrient supplementation; school feeding initiatives (given higher rates of school attendance in urban vs. rural areas); strengthening nutrition	The large number of 'orphans and vulnerable children' (OVC) programmes across LMICs represents opportunities to redouble focus on children with disabilities (e.g., through community surveillance + strengthened referrals and linkages to disability-friendly social protection, health service delivery and child protection)	Given prominence of livestock in the lifestyle of most of these groups, promotion of greater consumption of animal-source foods such as milk, treatment of illnesses and deworming for children, greater use of technology (digital technology) and community-based strategies that 'rove' with these mobile populations	There is good evidence from the studies on supporting dietary diversity and micronutrient intake through supporting access to indigenous foods, and enhancing crop production, including cultivation of traditional crops alongside commercial crops. This suggests opportunities 1) for increasing awareness and integration of indigenous/ traditional foods amongst communities, and in food aid and supplementary feeding initiatives; and 2) to support the economic empowerment of	There is good evidence from interventions to address micronutrient deficiencies – through micronutrient supplementation, school feeding initiatives and cash transfers – in terms of improving food consumption, and diet quality and diversity, and reducing anaemia prevalence. This suggests opportunities to provide multisectoral support that encompasses these interventions, alongside behaviour change strategies on childcare and infant

INSIGHTS FROM THE LITERATURE ON EFFECTIVE STRATEGIES	AT-RISK GROUP					
	Deeply rural, physically remote, and/or isolated groups	The urban poor (e.g., in slums or informal settlements)	Children and adolescents with disabilities	Pastoralists/ agro-pastoralists and nomadic groups	Children & women from marginalised ethnic groups or indigenous groups	IDPs, refugees, and returnees
		surveillance and other relevant data collected by health facilities/providers serving poor, transient urban populations			indigenous communities by supporting food production. The lack of identified nutrition strategies that tackle discrimination and social exclusion of marginalised ethnic groups, as part of the pathway to achieve greater access to nutritious diets and nutrition services in those groups, presents an opportunity for FCDO support.	and young child feeding practices

Annex 4: Additional indicators on equity, community participation and gender consideration

Illustrative indicators related to nutrition determinants	*Indicators related to equity*	*Indictors related to community participation*	*Indictors related to the interaction of community with external services*

• Increase in food consumption patterns of households and individuals (e.g., children under five
• Increase in food availability:
  ○ range and quantities of food produced by the household
  ○ modification of production system
  ○ availability of affordable foods
• Changes in food- and nutrition-related beliefs
• Access to water
• Indicators related to access to nutrition-specific and nutrition-sensitive health services
	• Indicators related to changes in division of labour and time use by gender
	• Indicators related to changes in distribution and consumption of food production resources
	• Indicators related to changes in income distribution
	• Indicators related to changes in knowledge and skills
		• Percentage of households involved in at least one activity of the participatory nutrition project (e.g. demonstration)
		• Changing size of group members during the project
		• Frequency of group attendance at meetings
		• Involvement of marginalized households in different programme activities
		• Number of persons/ days of labour involved in project activity
		• Number, percentage and gender of persons assuming leadership roles
			• Number and types of institutions with which the community has established regular linkages
			• Participation of community in external decisions affecting it directly
			• Number of people trained by external institutions to ensure sustainability

Key points to note:

- Community to decide what criteria to use to judge the success or failure of the project
- Each group responsible for an activity discusses and agrees on possible indicators with the food and nutrition group
- Information for monitoring and evaluation can come from discussions and meetings at different levels: local, coordinating committee, community group, etc.
- Promote appropriate mechanism for joint monitoring and evaluation process involving the community and local institutions
- Within externally funded projects, promote the organization of tri-partite evaluation involving community representatives, local government staff and external evaluators

Data collection methods: Participatory appraisals to include: discussions and meetings; group interviews, site visits, participant observation, keeping a diary

Reference: FAO Guideline for participatory nutrition projects - http://www.fao.org/3/v1490e/v1490e.htm#TopOfPage

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