

# Webinar series for Latin America and the Caribbean

## Nutrition in emergencies in the context of COVID-19 and migration

- 10<sup>th</sup> March** Prevention of malnutrition in pregnant and breastfeeding women
- 17<sup>th</sup> March** Prevention of malnutrition in children under five – Infant and young child feeding and supplementation
- 24<sup>th</sup> March** Nutrition care for children under five with acute malnutrition

*Spanish (9 to 10:30 am Panama time)*

*English (11 to 12:30 Panama time)*



Facilitators

Technical support



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Global Nutrition Cluster Technical Alliance

# Prevention of malnutrition in pregnant and breastfeeding women

**Webinar series for Latin America and the Caribbean**  
**Nutrition in emergencies in the context of COVID-19 and migration**

March 10<sup>th</sup> 2021

# Pre-webinar evaluation

# Agenda

1. Introduction
2. Nutrition during pregnancy and lactation
3. Consequences of malnutrition during pregnancy
4. Vulnerabilities in emergencies
5. Maternal nutrition interventions



Haitian mother breastfeeding her baby in a migrant shelter, Las Peñitas, Darien, Panamá, February 2020

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# Myths – Nutrition Sector

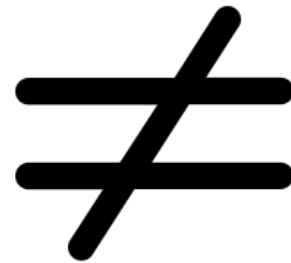
## Myth #1: Nutrition = Food Distribution



**Food Security**



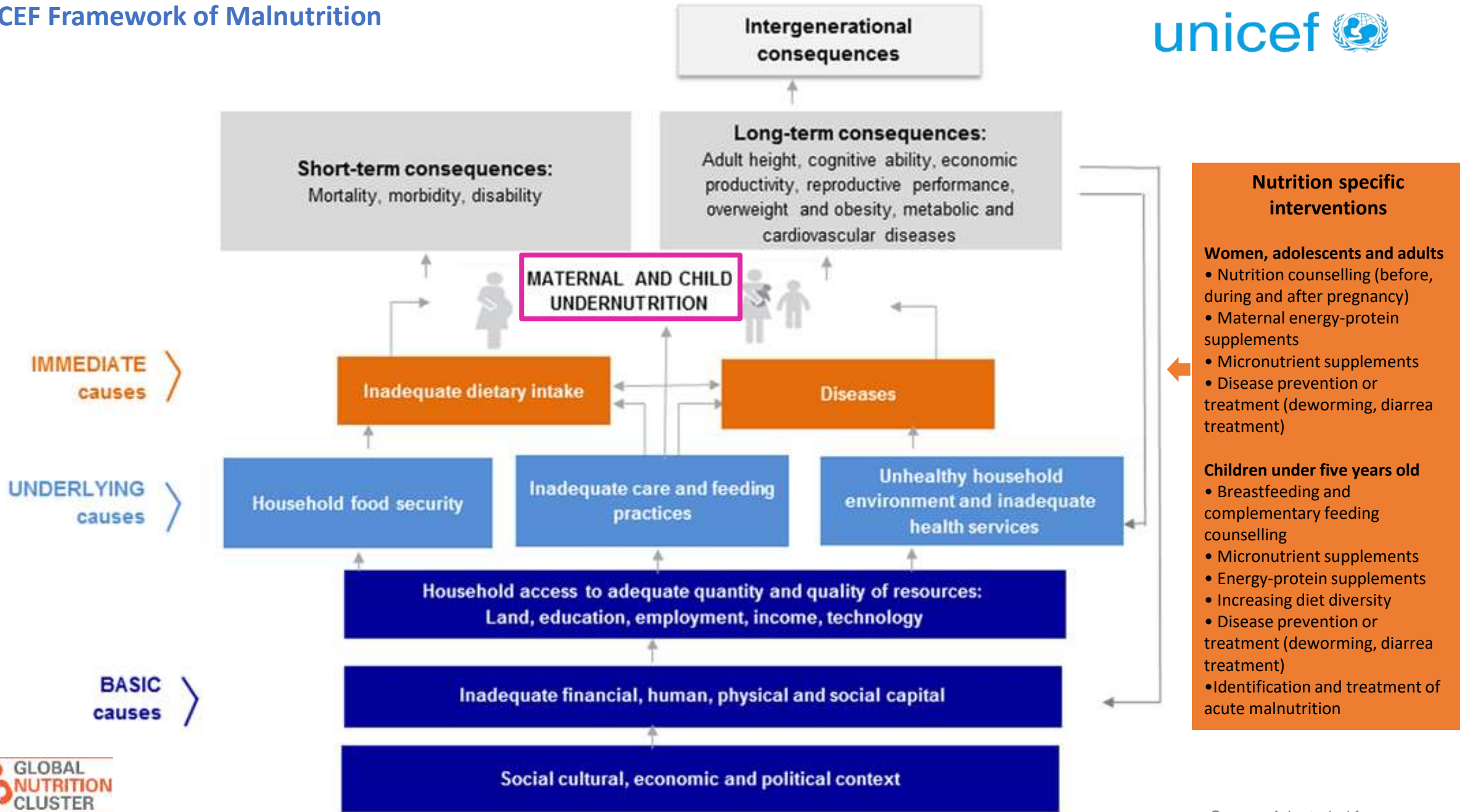
Food items distributed to the general population

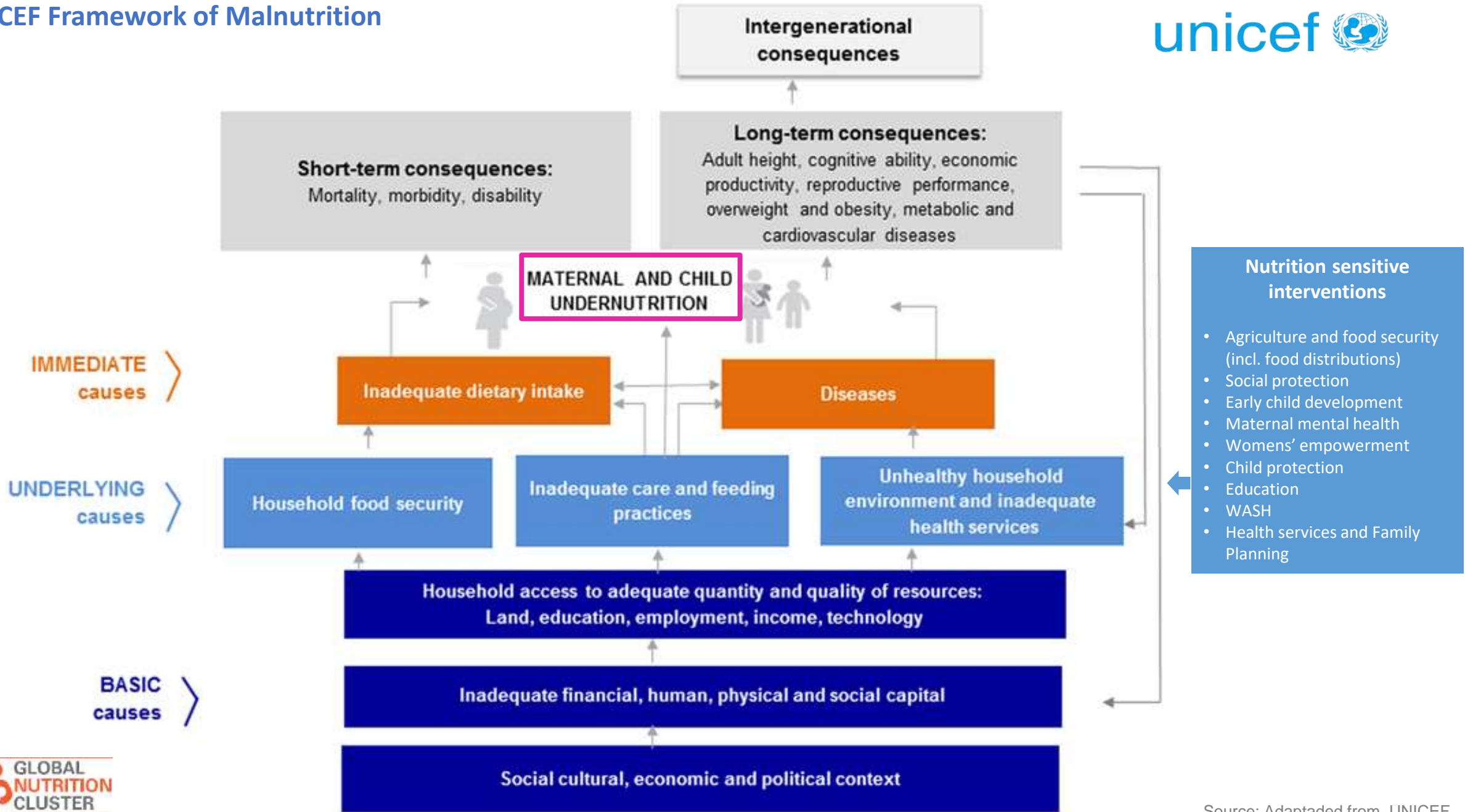


**Nutrition**



Specific nutritional needs covered according to age and condition

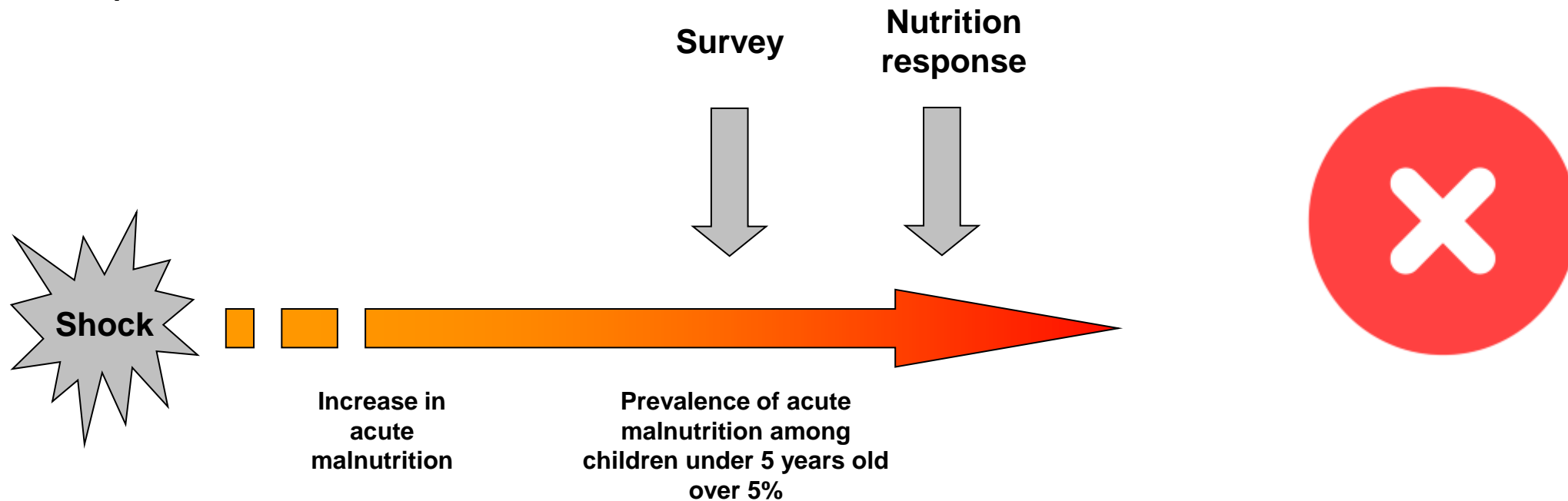






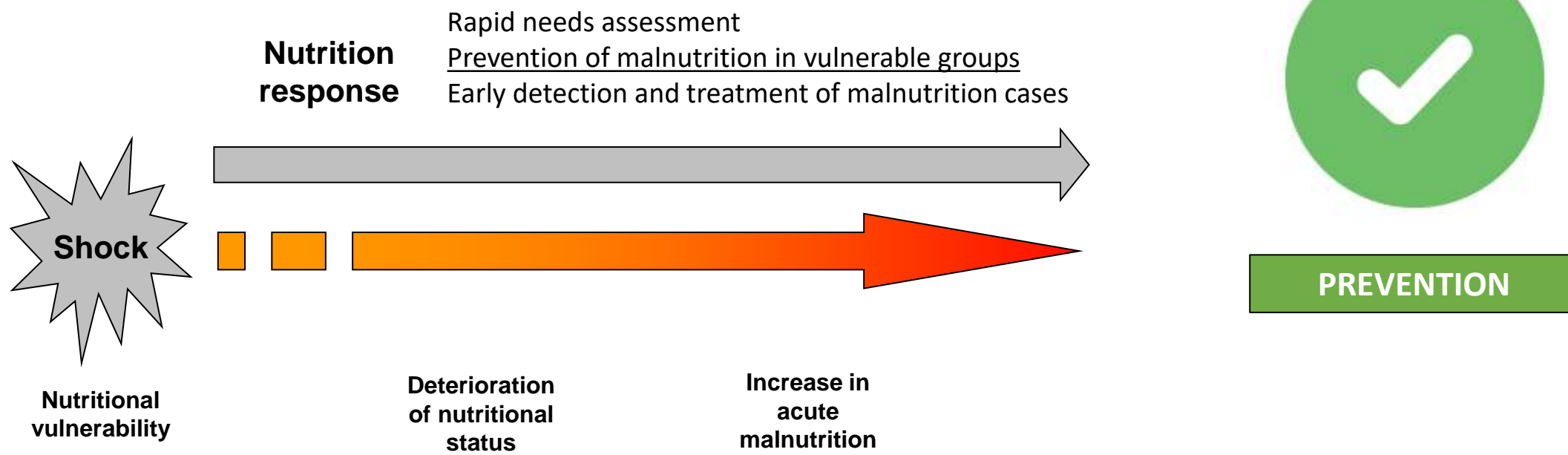
# Myths – Nutrition Sector

- **Myth #2:** Data on the impact of an emergency on the nutritional status of the affected population is needed to implement nutrition response activities

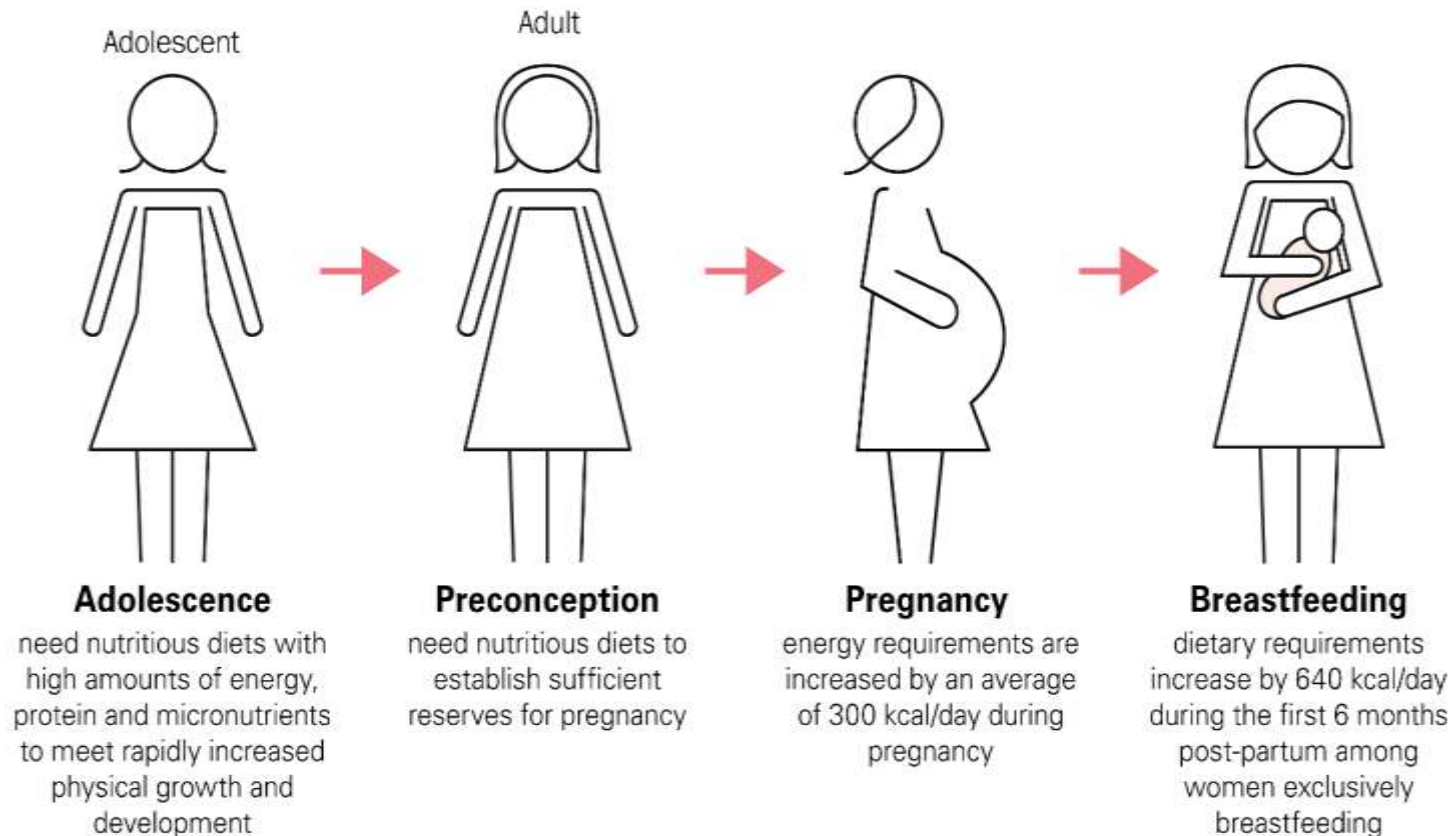


# Myths – Nutrition Sector

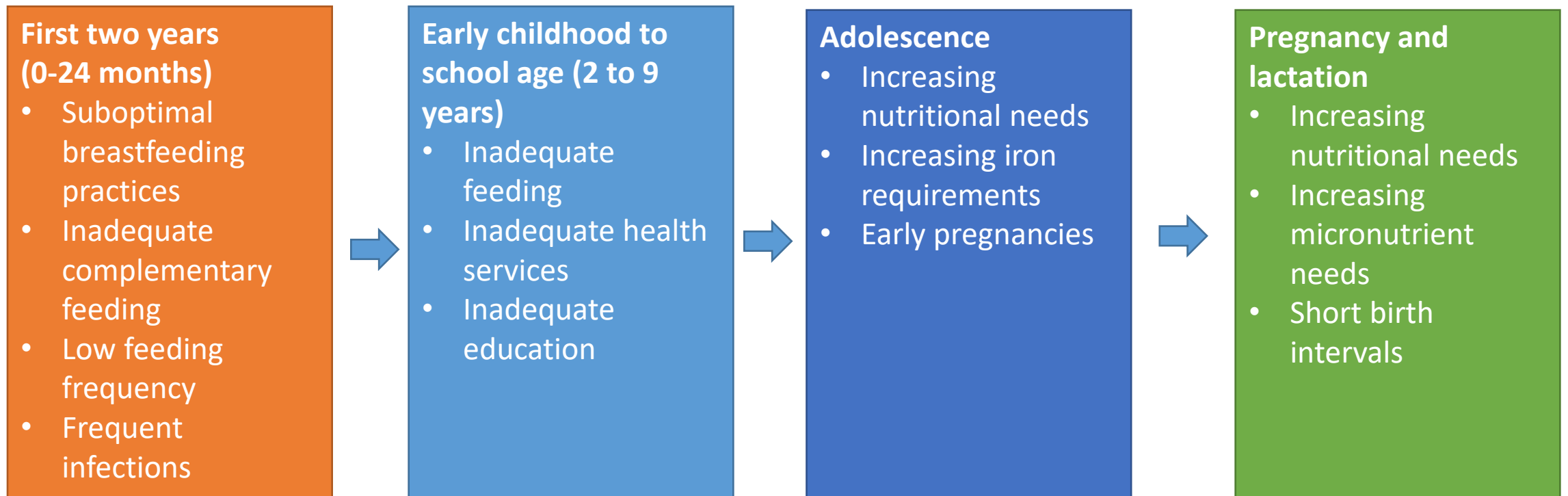
- **Myth #2:** Data on the impact of an emergency on the nutritional status of the affected population is needed to implement nutrition response activities



Women have distinct nutritional requirements over the life course; pregnancy and breastfeeding are two stages when vulnerability is the greatest due to increased nutritional needs.



# Women are vulnerable to malnutrition throughout the life cycle for both biological and social reasons



# Nutrition during pregnancy and lactation

## Increasing nutritional needs

- Physiology: menstruation, pregnancy and lactation
- Fetal growth and development
- Defenses to protect the woman's health
- Adolescence: increase even more (pregnancy occurs when the adolescent is still growing)

→ **Women are particularly vulnerable to malnutrition**

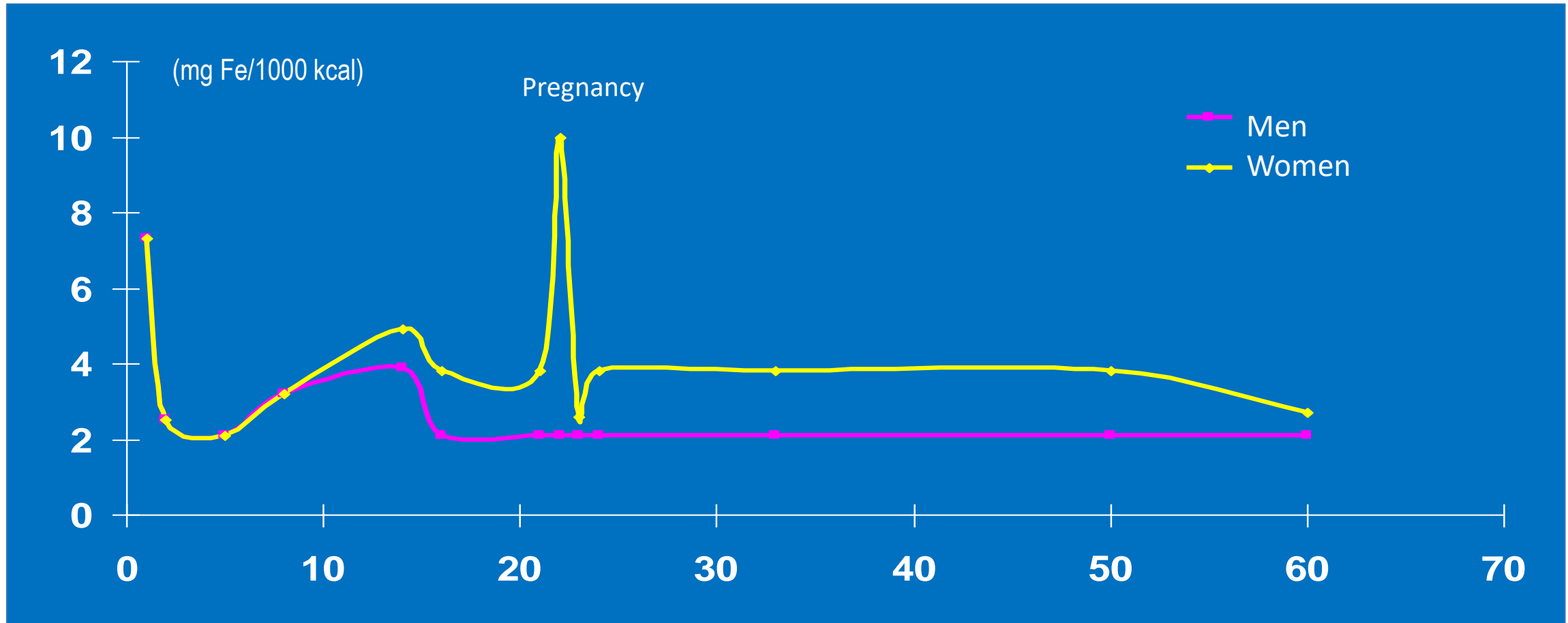
### During pregnancy, a woman needs:

- **300** additional kcal on average per day
- **7.1 g** additional protein per day

### During lactation, a woman needs:

- **640 additional kcal** per day (first 6 months if she is exclusively breastfeeding)
- **18.9 g** additional protein per day

During pregnancy, iron needs increase due to forming new tissues in the mother, the placenta and the fetus, and due to the blood loss during childbirth



Stoltzfus, 1997

# Gradual weight gain is recommended during pregnancy

## Weight gain recommendations during pregnancy

Pre-pregnancy nutritional status (BMI)	Total weight gain		Rates of weight gain (2 <sup>nd</sup> and 3 <sup>rd</sup> trimester)	
	Range in kg	Range in lbs	Mean (range) in kg/week	Mean (range) in lbs/week
Underweight (<18.5 kg/m <sup>2</sup> )	<b>12.5–18</b>	28–40	<b>0.51 (0.44–0.58)</b>	1 (1–1.3)
Normal weight (18.5–24.9 kg/m <sup>2</sup> )	<b>11.5–16</b>	25–35	<b>0.42 (0.35–0.50)</b>	1 (0.8–1)
Overweight (25.0–29.9 kg/m <sup>2</sup> )	<b>7–11.5</b>	15–25	<b>0.28 (0.23–0.33)</b>	0.6 (0.5–0.7)
Obese (≥30 kg/m <sup>2</sup> )	<b>5–9</b>	11–20	<b>0.22 (0.17–0.27)</b>	0.5 (0.4–0.6)

Source: Institute of Medicine, *Institute of Medicine (US) Committee on Nutritional Status During Pregnancy and Lactation. Nutrition During Lactation, in Meeting Maternal Nutrient Needs During Lactation*, N.A.P. (US), Editor. 1991: Washington (DC).

# Consequences of maternal malnutrition

Deficiency	Associated risks for women and their children
<b>Iron-deficiency Anemia</b>	Maternal mortality Babies with low birth weight Prematurity and neonatal mortality Reduced transfer of iron to foetus
<b>Folate</b>	Low birth weight and neural tube defects
<b>Vitamin A</b>	Night blindness, maternal mortality, and antepartum hemorrhage Low birth weight and infant mortality
<b>Calcium deficiency</b>	Pre-eclampsia (high blood pressure)
<b>Iodine deficiency</b>	Maternal and foetal hypothyroidism Neurological development of the foetus impaired
<b>Low BMI and suboptimal weight gain</b>	<ul style="list-style-type: none"> <li>• Risk factors for the delivery of infants too small for gestational age</li> <li>• Foetal growth restriction (cause of 25% of all newborn deaths) and therefore being born small for gestational age (SGA)—for both term and preterm infants</li> </ul>



# Increased vulnerability during emergencies

- Limited access to food
- Limited access to health services (ante and postnatal controls)
- Limited access to water
- Suboptimal hygiene and sanitary conditions
- Increased diarrhea and infectious diseases (malabsorption and nutrient loss)
- Gender based violence (increasing adolescent pregnancies)
- Maternal stress (increases cortisol levels and affects fetal growth)



**Increasing nutritional vulnerability  
and risk of malnutrition**

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
- Weight monitoring/  
MUAC measurement
- Nutrition support through  
balanced energy protein  
supplementation
- Nutrition counselling



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# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
- Weight monitoring/  
MUAC measurement
- Nutrition support through  
balanced energy-protein  
supplementation
- Nutrition counselling



## COVID-19 context

### Infection, prevention and control measures

- Hand hygiene
- Personal protective equipment
- Respiratory hygiene and cough  
etiquette
- Cleaning and disinfection of  
devices and environmental  
surfaces
- Supply storage and handling



- Use a medical mask (i.e., at  
least a surgical/medical mask)
- Wear eye protection (goggles)  
or facial protection (face  
shield)
- Wear a clean, long-sleeve  
gown
- Use gloves

# Maternal nutrition interventions

## Daily multiple micronutrient supplementation

- Prevention of micronutrient deficiencies and its consequences on maternal and child health
- 1 tablet per day from the first day of care (up to 6 months of breastfeeding)
- Containing at least 30 mg of elemental iron and 400µg of folic acid

- **Multiple micronutrient supplementation**
- Deworming prophylaxis
- Weight monitoring/  
MUAC measurement
- Nutrition support through  
balanced energy protein  
supplementation
- Nutrition counselling



# Stronger evidence to support multiple micronutrient supplementation (MMS) in pregnancy

- Systematic review of 33 Randomized Control Trials in low and middle income countries
- MMS should be prioritized over iron and folic acid supplements to improve birth and child health outcomes
  - Risk stillbirth reduced by 9% (95% CI: 2-14%; 22 studies)
  - Low birth weight (LBW) reduced by 15% (95% CI: 7-23%; 28 studies)
  - Small for gestational age (SGA) births reduced by 7% (95% CI: 2-12%; 19 studies)
  - Preterm births reduced by 4% (95% CI: 9% reduction-1% increase; 29 studies)

*Source: The Lancet Series on Maternal and Child Undernutrition Progress, 2021*

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- **Deworming prophylaxis**
- Weight monitoring/  
MUAC measurement
- Nutrition support through  
balanced energy protein  
supplementation
- Nutrition counselling

Single-dose albendazole (400 mg) or mebendazole (500 mg) is recommended for pregnant women after the first trimester to reduce the burden of worms caused by soil-transmitted helminth infections.

# Interventions to improve maternal nutrition

- Multiple micronutrient supplementation
- Deworming prophylaxis
- **Weight monitoring/ MUAC measurement**
- Nutrition support through balanced energy protein supplementation
- Nutrition counselling



- Weight in Kg
- Height in cm

Classification of nutrition status according to Body Mass Index	
Classification BMI(kg/m <sup>2</sup> )	IMC (kg/m <sup>2</sup> )
Underweight	<18,5
Adequate	18.5 -24,9
Overweight	≥25,00 – 29,9
Obesity	≥30,00

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
- Weight monitoring/  
**MUAC measurement**
- Nutrition support through balanced energy protein supplementation
- Nutrition counselling



**There are no international standards on the definition of acute malnutrition for malnourished pregnant or lactating women**

Some of the most used cut-offs are:

Mid-upper arm circumference (MUAC) at-risk cut-off is usually < 21 cm or < 23 cm.



# Maternal nutrition interventions



COVID-19 context

- Multiple micronutrient supplementation
- Deworming prophylaxis
- **Weight monitoring/  
MUAC measurement**
- Nutrition support through balanced energy protein supplementation
- Nutrition counselling



- Digital scales are safe. The scale allows the mother to stand on the scale with shoes, with no need to touch.
- Taring function is automatically initiated, without pressing any operational button.

VS



?

Contact between the mother and the health worker and contact with a surface (the MUAC tape).

Only use if:

- MUAC tape can be disinfected after each use, or
- a single-use MUAC tape is available, and
- masks and gloves are available for health workers.

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
- Weight monitoring/  
MUAC measurement
- **Nutrition support through balanced energy protein supplementation**
- Nutrition counselling



- Daily ready-to-use paste, high-energy fortified food for the treatment of malnutrition in pregnant and lactating women.
- Straight from the sachet, no cooking or dilution.
- Contains approximately 560 calories per 100g.
- Promotes foetus growth in underweight pregnant women.

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
- Weight monitoring/  
MUAC measurement
- Nutrition support through  
balanced energy protein  
supplementation
- **Nutrition counselling**

## Topics to be covered in nutrition counselling:

- Nutritious diets, considering locally available foods and affordability
- Counsel on micronutrient supplementation
- Monitor and counsel on appropriate weight gain
- Support underweight women with energy and protein intake and use of dietary energy and protein supplementation

# Maternal nutrition interventions

- Multiple micronutrient supplementation
- Deworming prophylaxis
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- **Nutrition counselling**

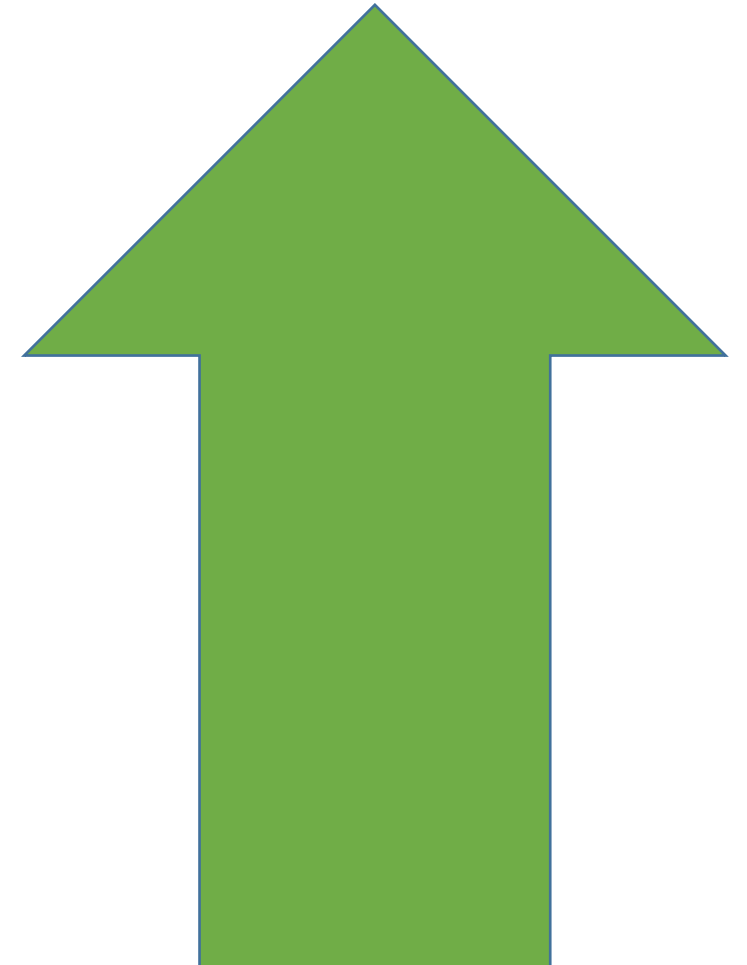
## COVID-19 context:

- Prioritize antenatal care contacts for pregnant women in third trimester, adolescent girls, underweight.
- Schedule antenatal contacts to reduce overcrowding, and provide all relevant care in a single visit.
- Where antenatal or postnatal contacts reduced: provide 2-3 months of micronutrient supplementation.

# Maternal nutrition interventions

The success of supplements depends on:

- Continuous supplies
- Distribution system that is accessible to the target population
- Womens' compliance
- Community communication/engagement
- Human resources: committed and adequately trained



# Interventions to improve maternal nutrition

## Borders (shelters)

- Rapid assessment: # PLW
- Weight monitoring/MUAC (identif. of malnourished mothers)
- Energy protein supplementation for malnourished PLW
- Nutrition counselling
- Deworming
- Micronutrient supplementation
- Communication on available nutrition services, how and where to access them

Mobile clinics

## For transit

### To cover the transit period

- Micronutrient supplementation
- Energy protein supplementation for malnourished PLW (for the estimated number of days until reaching destination/the next border)

## Host communities

- Communication on available nutrition services, how and where to access them
- Nutrition counselling
- Deworming
- Micronutrient supplementation
- Weight monitoring/MUAC (identif. of malnourished mothers)
- Energy protein supplementation for malnourished PLW

Health care facilities (antenatal and postnatal care)

Prioritize continuity of maternal Nutrition services

Maintain uninterrupted availability of essential Nutrition commodities



COVID-19 context

# Maternal nutrition interventions

## Examples of Nutrition-sensitive interventions (with other sectors)

<b>Health</b>	Advocacy for access to health services to refugee and migrants
<b>Protection</b>	Improving maternal psychosocial well-being Expand social protection programmes to cover maternal nutrition needs
<b>WASH</b>	Hygiene and sanitation to reduce parasitic infections and diarrhoeal diseases
<b>Food security</b>	Give priority to PLW in food distributions

# For more information

WHO antenatal care recommendations for a positive pregnancy experience  
Nutritional interventions update: Multiple micronutrient supplements during pregnancy

WHO 2020

Protecting Maternal Diets and Nutrition Services and Practices in the Context of COVID-19

Brief No. 4 | 22 April 2020

To support decision-makers and implementers on how to prepare and respond to the COVID-19 pandemic, a series of guidance briefs are produced and periodically updated as new information and evidence emerge. This brief provides interim programmatic guidance on actions to protect the diets and nutrition services and practices of pregnant women and breastfeeding mothers (henceforth referred to as 'women') during the mitigation phase of the COVID-19 response. Disseminating this guidance and documenting emerging evidence and lessons learned will be key to implementing the most appropriate and effective responses in the face of this pandemic. Please share your questions and programmatic adaptations with us.

English: <https://www.unicef.org/forums/31.aspx> | French: <https://www.unicef.org/forums/31.aspx>

**RELEVANCE OF THIS BRIEF TO THE GLOBAL COVID-19 RESPONSE**

The COVID-19 pandemic and its socio-economic impacts are likely to disproportionately impact the diets and nutrition practices and services of women. Pregnancy and breastfeeding are periods of nutritional vulnerability when nutrient needs are increased to meet physiological requirements, sustain fetal growth and development and protect the health of the mother while breastfeeding. Globally, many women do not meet their dietary needs, which has negative consequences for their own nutrition, health and immunity, as well as for the nutrition, growth and development of their infants. In the context of COVID-19, women may face additional risks impacting diets, nutrition practices, and access to nutrition services as follows:

- Disruptions in food systems may limit the availability of and access to nutritious foods, increase food prices making nutritious foods unaffordable, and increase the availability and/or reliance on cheap staple cereals, roots and tubers) and nutrient-poor ultra-processed foods. Such disruptions may affect the quality of diets and impact the nutritional status of women and newborns. In food insecure households, COVID-19 may also exacerbate discriminatory gender and social inequalities around food with adverse impacts on the nutritional status of women.
- The COVID-19 response may limit the availability and access to essential nutrition services for women. Even before the pandemic, quality and timely maternal nutrition services were mostly unavailable, inaccessible or unaffordable for many women. This situation may be exacerbated due to mobility restrictions and reduced capacity of already overwhelmed healthcare systems. Moreover, human, financial, and logistical resources may be diverted to prioritise the COVID-19 response. Fear of infection may also prevent women from seeking care. Disruptions to essential nutrition services may be amplified for at-risk women.
- Socio-cultural factors and gender norms may adversely affect women from healthy practices during COVID-19. Social exclusion, limited decision-making power, and hampered physical mobility may constrain the needs and concerns of women from being identified and hinder access to information and participation in food and nutrition, counselling and financial assistance. Existing social protection schemes may not respond to the needs of women. Women may face increased stress, trauma, depression and other mental health concerns along with gender-based violence resulting from loss of social support structures and disruptions during physical distancing.

Maternal and Child Undernutrition Progress 1

Revisiting maternal and child undernutrition in low-income and middle-income countries: variable progress towards an unfinished agenda

Series

23 years after the first Lancet Series on maternal and child undernutrition, we reviewed the progress achieved on the basis of global estimates and new analyses of 58 low-income and middle-income countries with national surveys from around 2000 and 2017. The prevalence of childhood stunting has fallen, and linear growth faltering in early life has become less pronounced over time, especially in middle-income countries but less so in low-income countries. Stunting and wasting remain public health problems in low-income countries, where 4.7% of children are undernourished (affected by both), a condition associated with a 4.5-fold increase in mortality. New evidence shows that stunting and wasting might already be present at birth, and that the burden of both conditions peaks in the first 6 months of life. Global low birthweight prevalence declined slowly at about 1.6% a year. Knowledge has accumulated on the short-term and long-term consequences of child undernutrition and on its adverse effect on adult human capital. Existing data on vitamin A deficiency among children suggest persisting high prevalence in Africa and south Asia. Zinc deficiency affects close to half of all children in the low countries with data. New evidence on the causes of poor growth points towards suboptimal breastfeeding and environmental enteric dysfunction. Among women of reproductive age, the prevalence of low body-mass index has been reduced by half in middle-income countries, but trends in stunting prevalence are less evident. Both conditions are associated with poor outcomes for mothers and their children, a finding that is consistent with data on gestational weight gain and scores. Data on the nutritional status of women are conspicuously scarce, which constitutes an unacceptable data gap. Prevalence of anaemia in women remains high and unchanged in many countries. Social inequalities are evident for many forms of undernutrition in women and children, suggesting a low role for poverty and low education, and reinforcing the need for multilateral actions to accelerate progress. Despite little progress in some areas, maternal and child undernutrition remains a major global health concern, particularly as improvements since 2000 might be offset by the COVID-19 pandemic.

Introduction

Despite substantial progress in reducing global poverty and food insecurity in the past 50 years, the prevalence of maternal and child undernutrition in low-income and middle-income countries (LMICs) has remained unacceptably high.<sup>1,2</sup> In the past 20 years, this prevalence has led to the implementation of interventions to reduce undernutrition, especially during the crucial first 1000 days—from conception to the second birthday—that have important consequences for survival, resistance to infection, growth, and development throughout the course of life.<sup>3,4</sup> The global nutrition targets endorsed by the World Health Assembly in 2012 drove the need to reduce low birthweight, childhood stunting, and wasting and, among its women, and to increase exclusive breastfeeding in the first 6 months of life; yet progress has been slow in most LMICs.<sup>5,6</sup>

The important influence of early-life undernutrition, particularly in combination with later excess-weight gain, have on the development of non-communicable diseases are well described.<sup>7,8</sup> The increase in overweight/obesity with persisting undernutrition in young children, has led to the so-called double burden of malnutrition in many countries,<sup>9</sup> and research has shown that both undernutrition and overweight have similar



# Post-webinar evaluation

# Questions and answers session