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Nutrition and Food Security Alliance of Namibia

# NUTRITION FOR HEALTH

## EMBRACING OUR NAMIBIAN FOOD SYSTEMS

## FACILITATORS' MANUAL

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# FOREWORD

Despite Namibia's status as upper-middle income country, it is economically the second-most inequal society worldwide[1], with 43.3% of the population living in multidimensional poverty.[2] Namibia also faces what is called the triple-burden of malnutrition[3] with overnutrition (overweight/obesity) coexisting alongside undernutrition (stunting/wasting) and hidden hunger (micro-nutrient deficiencies). In 2016 undernutrition-related costs to the Namibian economy were already estimated at least N$ 11 billion (> 5,2% of Namibia's GDP) per year[4].

In 2021, the Namibian Government, in collaboration with various stakeholders, revised its Food and Nutrition Security Policy[5] to tackle these important and interrelated issues through a coordinated inter-sectoral multi-stakeholder approach.

It is against this background that this Nutrition Training Manual was developed as a means to raise awareness and strengthen knowledge on healthy nutrition practices, including maternal and child nutrition, as well as breastfeeding and the first foods (=complementary feeding) during the crucial first 1,000 days of a child's life.[6]

In addition, this manual aims at creating a better understanding of crucial linkages between the areas of health and agriculture, i.e., the food we eat and what we grow. This is particularly important considering the high levels of poverty and that most Namibians are not able to afford a minimally nutritious diet [costed at NAD 3,131 monthly for a family of five in 2021 and notably higher today[7]].

Conceptualized by The Nutrition and Food Security Alliance of Namibia (www.nafsan.org) with support from and in close collaboration with GIZ Namibia's Farming for Resilience (F4R) Project, this Facilitators' Manual strives to:

- ✓ provide clear yet comprehensive information in an engaging and participatory manner;
- ✓ to empower Namibians at all levels of society and enable them to make more informed and healthier choices for themselves and their children regarding nutrition;
- ✓ *and to inspire them to take organic and sustainable food production into their own hands, thereby improving access to healthy food and food self-sufficiency at the household level.*

This manual, a first of its kind in terms of comprehensiveness and approach, started being rolled out and assessed in the field in early 2023. Ongoing feedback from facilitators and participants from diverse cultural and socio-economic backgrounds in rural and urban settings across Namibia will allow for evidence-based revisions of this material in the future. We hereby like to appeal to Namibia's private sector to sustainably invest in nutrition-related interventions. In this regard we are specifically grateful for the Capricorn Foundation's financial contribution to the printing of materials in 2023, which helped to ensure scaled up implementation of Trainings-for-Facilitators in 2024.

We hope this manual will make a significant contribution to improving the nutritional status of all Namibians and that its implementation will bring a diversity of stakeholders together in pursuance of the common vision to achieve zero hunger in the not-too-distant future.

***Tino Hess***
GIZ F4R – Team Leader

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Capricorn Foundation

1 World Bank, 2015 - *http://povertydata.worldbank.org/poverty/home*
2 Oxford Poverty and Human Development Initiative (2021). Namibia Multidimensional Poverty Index Report
3 UNICEF (2020). New insights: 21st century malnutrition: Unpacking the triple burden for children nutritional wellbeing - *https://www.unicef.org/globalinsight/stories/new-insights-21st-century-malnutrition*
4 National Planning Commission in collaboration with WFP, GIZ, UNICEF and NSA (2022). Cost of Hunger in Africa (COHA) Namibia – The Social and Economic Impact of Child Undernutrition in Namibia.
5 All documents online: *https://opm.gov.na/national-food-and-nutrition-security & www.nafsan.org/nfns*
6 More information at Namibia's Right Start Campaign: *www.rightstart.com.na* & *https://thousanddays.org*
7 National Planning Commission in collaboration with WFP, GIZ-F4R (2021). Fill the Nutrient Gap, Namibia.

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# INTRODUCTION AND OVERVIEW

This facilitators' manual is your guide to facilitate practical and participatory training sessions on nutrition in Namibia, after having gone through your own training-of-facilitators.

This manual starts by providing you with the programme for the 2-day workshop (page IX), followed by brief remarks on 'facilitation' and how it is different from 'teaching'.

Brief **descriptions of all sessions** over the course of 2 days are on **pages 2-5** and these are essential for you to familiarize yourself with to understand the overall dynamics of this course.

More in-depth instructions for all exercises and information sessions are then in Chapter 3, followed by Chapter 4, containing helpful background information on key content, so that facilitators are sufficiently knowledgeable when having to present information and are answering questions. Chapter 5 then offers additional 'tips for facilitating' interactive sessions.

Chapter 6 contains all worksheets that need to be printed, followed by the last 2 Chapters offering a list of abbreviations and explanations of the most important terms, as well as a list of references and additional sources for further reading and finding more information.

The **training-of-facilitators workshop** for this facilitators' manual (offered by NAFSAN in close collaboration with GIZ-F4R) allows you to provide practical and culturally sensitive nutrition advice at a basic level for individuals and communities. Be aware, this does not enable you to provide any form of medical advice and you are urged to refer anyone with specific medical questions or conditions to respective medical professionals in private practice, hospitals, clinics or to community health workers.

**Training Duration:** 2 days **Number of Participants:** 20 (ideally) and 24 (max.)

## OBJECTIVES

The aim of this training manual is to provide clear and practical guidance for facilitators on this **2-day nutrition training** so that they can successfully facilitate training sessions that will:

1. Raise awareness of malnutrition, unhealthy and/or unsafe food-related practices,
2. Increase participants' knowledge and understanding of nutrition and healthy eating,
3. Motivate participants to eat and drink healthier and inspire behaviour change in families and communities,
4. Promote breastfeeding and create better environments for mothers, children and caring fathers.

## EXPECTED OUTCOMES

By the end of this 2-day workshop, participants should be able to…

- ☑ Distinguish between different forms of malnutrition, including under- and overnutrition,
- ☑ Explain the significance of good nutrition for individuals, communities, and the nation,
- ☑ Discuss the risks of added and hidden sugars, as well as the overconsumption of fats,
- ☑ Prepare healthy, adequate, and balanced meals based on knowing about food groups,
- ☑ Demonstrate an understanding of the importance of nourishing children during their first 1,000 days,
- ☑ Clarify the need for mothers to breastfeed and to be nourished and supported as well,
- ☑ Illustrate ways in which food can be grown, harvested, processed, and safely prepared,
- ☑ Demonstrate knowledge of different methods to preserve food and reduce food waste,
- ☑ Assess nutrition-related challenges in their lives and take actions to overcome them.

# PROGRAMME

## DAY 1

8h00 Arrival of Participants and Registration – Tea/Coffee to be available
8h30 Welcoming and Overview of the Workshop
8h45 Introduction Round – 3 specific questions each

**Part 1 – Nutrition and Malnutrition**

9h15 Introduction: Nutrition Quiz – *whole group exercise*
9h45 Understanding Malnutrition - Undernutrition – *input and discussions*
10h45 Nutrition Break
11h15 Understanding Malnutrition - Overnutrition – *input and discussions*
11h45 Sugar and Me – *experimental exercise*
12h30 Hidden Sugars and Fats – *input and discussions*
*13h00 Lunch*

**Part 2 – Food Groups and Healthy Eating**

14h00 The Food We Eat - *exercise and introduction to food groups*
15h00 Food Groups and their Nutritional Value – *input and discussions*
15h30 Nutrition Break
15h45 Nutrition Challenges in Our Lives – *exercise and reflections*
16h45 Closing Round *End of Day One at 17h*

## DAY 2

8h00 Arrival of Participants and Registration – Tea/Coffee to be available
8h15 Afterthoughts and reflections from the previous day

**Part 3 – The Right Start for Our Children**

8h45 The First 1,000 Days – Input and discussions
9h00 Maternal Nutrition – Exercise and input
9h30 Breastfeeding and First Foods – Exercise, reflections and input
10h15 Child Nutrition and More – Input and discussions
10h45 Nutrition Break

**Part 4 – Food Systems and Cycles**

11h15 Agri-Nutrition Linkages: The Food We Grow – exercise and input
11h45 Food Safety and Preparation – Input and discussions
12h30 How Do We Conserve Food? – Exercise and reflections
13h00 Lunch Break
14h00 Reflecting on our lunch – Practical recap
14h15 Food Preservation, Storage and Waste Reduction – Input and discussions
15h00 Recap of Workshop – Brief summary / reflections
15h15 Nutrition Break
15h30 Challenges, Opportunities and Ways Forward – Exercise and joint reflections
16h30 Final Workshop Evaluation
16h45 Closing Round *End of Nutrition Training at 17h*

## RESOURCES AND MATERIALS REQUIRED TO FACILITATE THIS TRAINING

For successfully facilitating this workshop, you will require the following resources/ materials, which were developed in such a way that it will enable you to facilitate without the need for electricity, computers, or projectors.

Please make sure you have all the items on this **Check List** ticked:

- ☐ Attendance List – any, but it should be disaggregated by gender (m/f)
- ☐ Workshop Programme – page IX, printed out for each participant
- ☐ All Worksheets (1-7) for Exercises and Evaluation (pp. 81-89), printed for each participant
- ☐ Info Materials – as per 'Facilitation Guide', at least one copy per participant:
  - ☐ 'Food Groups' Pamphlets, by GIZ-F4R
  - ☐ 3 x 'Breastfeeding and Nutrition' Pamphlets, by MoHSS
  - ☐ 'Step-by-Step Gardening Guide', by NAFSAN
  - ☐ 'Nutrition and Food Safety flyer', by NAFSAN
  - ☐ 'Composting Posters' (A4 or A5), by NAFSAN
  - ☐ Diabetes, Cholesterol and High Blood Pressure brochures, by NAFSAN
- ☐ Pocket Guide on 'Nutrition for Health' – compiled key information in form of handouts
- ☐ Set of Slides and Key Messages on 'Flip Chart'
- ☐ Materials for the 'Sugar Exercise' (Day 1, morning)
  - ☐ 6 x Bottles (half-liter, empty) to be filled with tea and sugar (marked: A-F)
  - ☐ 6 x blank A4 pages, marked with a big A, B, C, D, E, and F
  - ☐ 15 bags of Rooibos tea (5 x for each bottle)
  - ☐ 1kg sugar (to be added to the tea in different doses)
  - ☐ 1 x cup per participant
- ☐ Materials for the 'Food Groups Exercise' (Day 1, afternoon + Day 2)
  - ☐ 4 x large Baskets (*Limbale*, or any other), paper and pegs
  - ☐ 126 Cards of Food Pictures (cut and laminated)
  - ☐ 6 x Plates for the typical/ideal meal
- ☐ Optional:
  - ☐ Flipchart, paper, Prestik and markers
  - ☐ Notepad and pens for participants to take notes

# 1. ABOUT THIS TRAINING

The training outlined in this manual is likely to be different from other approaches so far in Namibia when it comes to educating individuals and communities about nutrition.

This 2-day training is designed in such a way that it engages participants through interactive exercises on various topics, linking their practical experiences from these exercises to the additional input that is then being provided to them. This provision of input deliberately avoids PowerPoint presentations but rather uses laminated A2-slides, which can be easily applied in any urban or rural setting. They are meant to be used with participants sitting in a circle and with the facilitators being among them. This serves to reduce the social distance between the facilitator and participants, which in turn makes participants co-contributors of knowledge and makes them more responsible for their learning. Furthermore, it enhances participation while creating a more comfortable conversational atmosphere for the information-sharing parts of the training.

Please note, that the intentional flow of learning processes in the overall design of the 2 days aims at helping participants not just to acquire valuable knowledge but to inspire actual behavior change when it comes to different aspects of nutrition throughout their life cycle. Therefore, this requires you to be in the role of a 'facilitator' rather than a teacher or trainer, and this page and Chapter 6 provide you with some tips and tricks in this regard.

***Please note that if it is not possible to facilitate this training in a full 2-day workshop format, you can deliver it in four consecutive sessions, for instance 4 different mornings over a period of 4 weeks or several days. In this case, each of these 4-morning sessions focuses on 1 of the 4 parts into which the training has been divided.**

## BEING A FACILITATOR

A facilitator is someone who makes learning or social change processes easier, often helping individuals or groups gain a deeper understanding of themselves on a certain issue. Based on insights from adult education and other participant-centred approaches, facilitators refrain from telling people what to do, because one-sided knowledge supply and all-knowing attitudes have proven not to be very effective but are quite disempowering.

It is hereby firstly important that the learning space is safe, both emotionally [e.g. through honesty, non-judgmental listening and confidentiality] and physically [i.e., no harmful jokes, intimidation, body-shaming or harassment]. In addition to that facilitators use their skills and inner attitudes to create a conducive environment in which people are eager to engage, comfortable to participate, and feel free to open up because this is where real learning, understanding, personal growth and genuine behavior change happen.

Therefore, facilitators ensure that **participants feel heard** and appreciated for their contributions to the session, and are not necessarily there to give opinions and advice, but to rather draw out existing knowledge, useful experiences and helpful ideas from among the group members.

You focus on *how* people participate in the process of learning, understanding, and planning, not just on *what* gets achieved, e.g. by occasionally facilitating a round where everybody says something on a certain issue, for instance - but not limited to - during the closing rounds.

# 2. FACILITATION GUIDE AND INSTRUCTIONS

## DAY 1 – UNDERSTANDING NUTRITION, FOOD GROUPS AND HEALTHY DIETS

| TIME | SESSION TITLE | INSTRUCTIONS FOR FACILITATORS | RESOURCES | HAND OUTS |
|---|---|---|---|---|
| 8h00 | Arrival and Registration | Set up workshop space in advance with chairs in a circle, all resources ready at hand, refreshments organised. Welcome participants as they come in and offer them water and fruits (if possible) as they sign the attendance list. | Attendance List<br>Water and Fruits | |
| 8h30 | Welcoming and Overview of Workshop | Officially welcome everyone (consider a prayer, as appropriate) and address any needs for translation. Give a short overview of what the workshop will be about and highlight that it will be participatory in nature, so participants are encouraged to interact, ask questions, and take notes, although there will be handouts during the workshop. Ensure to talk about basic 'ground rules', such as phones to be muted or off, and logistics (e.g. where the toilets are) and that nutritious lunch and refreshments are provided (ask for any special diets). | Programme (p. IX), one copy each | |
| 8h45 | Introduction Round | One after the other in the circle, people shall introduce themselves (starting with yourself) by mentioning the following 3 things about themselves:<br>**1) *My name is..., and I am ...*** *(role/profession)*, **2) *My favourite food is..., and* 3) *....*** *(number)* ***children are under my care and/or live in my house.*** | *This is an essential part of this workshop, to get to know one another and to start in a participatory way.* | |
| 9h15 | **Part 1 – Nutrition and Malnutrition**<br><u>Exercise:</u> Nutrition Quiz | Invite people to join you in a practical exercise to find out what we already know about nutrition so far, and to get everyone started on the topic. | Ex. 1 - 'Nutrition Quiz' (p. 6) | |
| 9h45 | Understanding Malnutrition, Part 1 – "Undernutrition" | Before we focus on how good nutrition (and balanced diets) look like and how it can be achieved, let's understand Namibia's overall nutrition situation and introduce some typical forms of malnutrition, specifically undernutrition. | Info 1 - 'Malnutrition – Undernutrition' (p. 8) + Slides - 1 | |
| *10h45* | *Nutrition Break* | *Be aware of healthy snacks being served, such as fruits and sandwiches. Avoid sweet snacks and cool drinks, rather mix water with juice 50/50.* | | |
| 11h15 | Understanding Malnutrition, Part 2 – "Overnutrition" | Now, let's look at the other side of the 'double burden of malnutrition' where we have overweight and obesity, which are also alarmingly common in Namibia and present serious challenges to our health and economy, and we will start talking about how we can overcome them. | Info 2 - 'Malnutrition – Overnutrition' (p. 14) + Slides - 2 | Brochures on Diabetes, Cholesterol & High Blood Pressure |

| | | | | |
|---|---|---|---|---|
| 11h45 | Exercise: Sugar and Me | This eye-opening exercise may bring unexpected insights for participants about their own and other people's active sugar consumption, while it is a good reminder of where healthy eating habits start and how they can even be cheaper. It is also a good entry point to talk about hidden sugars and fats. | Ex. 2 - 'Sugar and Me' (p. 17) | |
| 12h30 | Hidden Sugars and Fats | Further information and some revelations regarding the unhealthiness of many ultra-processed foods that we have become very accustomed to eating on a daily basis, including our habits to prepare some food in ways that use far too much oil, which is very unhealthy. | Info 3 - 'Hidden Sugars and Fats' - (p.19) + Slides - 3 | |
| *13h00* | *Lunch Break* | *Ensure you have communicated with the caterers well in advance that the lunch that will be served indeed consists of a healthy and balanced meal and any special dietary needs are taken care of. Also make sure that no cool drinks are served, only water and juice (ideally mixed 50/50 with water).* | | |
| 14h00 | **Part 2 – Food Groups and Healthy Eating**<br><br>Exercise: The Food We Eat – Introducing Food Groups | Here we now engage participants in differentiating between various food groups, and we encourage reflections on 'real' and 'ideal' meals. | Ex. 3 - 'Food Groups' (p. 23) | |
| 15h00 | Food Groups and their Nutritional Value | Profound, clear, and visually appealing input, as to how an ideal meal looks like in terms of variety and proportion, incl. water and exercise. | Info 4 - 'Food Groups' (p. 25)<br><br>+ Slides - 4 | + GIZ-F4R Pamphlet: 'Food Groups' |
| *15h30* | *Nutrition Break* | *Be aware of healthy snacks being served, such as fruits and sandwiches. Avoid sweet snacks and cool drinks, rather mix water with juice 50/50.* | | |
| 15h45 | Exercise: Nutrition Challenges in our Lives | After a quite intense first day, this serves as opportunity for participants to reflect and connect their learning with the reality at home/out there, while it is also an opportunity for facilitators to get initial feedback from participants. This way we can better understand what possible challenges are, which can enable us to possibly address specific issues tomorrow during day 2. | Ex. 4 - 'Nutrition Challenges' (p. 31) | |
| 16h45 | Closing Round | End the day with a closing round, where everyone shares: *"The most valuable thing I learned today was…"* (= also discussed in the previous exercise) | (p. 31) | |
| *17h00* | | *End of Day One* | | |

## DAY 2 – RIGHT START IN LIFE, FOOD SYSTEMS THINKING AND BEST PRACTICES

| TIME | SESSION TITLE | INSTRUCTIONS FOR FACILITATORS | RESOURCES | HANDOUTS |
|---|---|---|---|---|
| 8h00 | Arrival, *Tea and Coffee* | *It may be interesting to observe is people's sugar intake is already different.* | Attendance List | |
| 8h15 | Afterthoughts and Reflections | This session is a landing space. Everyone is invited to share any overnight reflections on some of the issues we touched on freely with the group.<br>Make it clear that this is not a space for discussions! Even questions that may be asked here should not be answered immediately, as this space is dedicated to open reflections and for people to check in with where they genuinely are in processing the content of this workshop. This session is a non-judgmental space, and while one person's sharing may inspire someone else's deeper reflections it this is not a recap, discussion, nor QandA session. | *Just provide a safe space for respectful reflective listening.* | |
| 8h45 | **Part 3 – The Right Start for Our Children**<br>The First 1,000 Days | Explain why the first 1,000 days (from conception) of a human life matter the most and share some impressions of the global recognition and national momentum (*www.rightstart.com.na*) that this understanding is gaining. | Info 5 - 'First 1,000 Days' (p. 32)<br>+ Slides - 5 | |
| 9h00 | Maternal Nutrition | For children to develop fully, we need to focus on the environment in which the child starts growing up: the mother's womb. Therefore, maternal nutrition is key, and this exercise helps us make sure we genuinely understand this. | Ex. 5 - 'Maternal Nutrition' (p. 34) | |
| 9h30 | Breastfeeding and First Foods | This is a key session, in which people's own knowledge and understanding gets valued first, before validated in-depth information is being shared on breastfeeding. How infants can slowly and steadily be introduced to food, while also highlighting typical myths and mistakes, and how to avoid them.<br>Key resource: *'Nourishing the Namibian Child'* - *https://cloud.nafsan.org/ChildNutrition.pdf* | Ex. 6 - 'Breastfeeding and Complementary Feeding' (p. 36) | 3 x MoHSS Brochures: 'Breastfeeding and Nutrition' |
| 10h15 | Child Nutrition | Building on what was shared yesterday, emphasis lies on ensuring sufficient nutritious food is given to children as they develop, incl. practical tips on dehydration and nutrition at school and the importance of school gardens. | Info 6 - 'Child Nutrition' (p. 39)<br>+ Slides - 6 | |
| *10h45* | *Nutrition Break* | *Be aware of healthy snacks being served, such as fruits and sandwiches.*<br>*Avoid sweet snacks and cool drinks, rather mix water with juice 50/50.* | | |
| 11h15 | **Part 4 – Food Systems and Cycles**<br>Agri-Nutrition Linkages: The Food We Grow | The exercise and additional input/discussions here serve to make the link clear between nutrition and agriculture (food production, incl. gardening) and to start understanding the interconnectedness of food cycles and systems. | Ex. 7 - 'The Food we Grow' (p. 43) | NAFSAN Flyers: 'Step-by-Step' Gardening Guide |
| 11h45 | Food Safety and Preparation | Input and discussions around what we should be aware of to make sure our food and body stays free of infections and diseases when it comes to the handling and preparation of food, including key aspects of personal hygiene. | Info 7 - 'Food Safety and Preparation' (p. 45)<br>Slides – 7 | NAFSAN Flyers: 'Nutrition & Food Safety' |

| | | | | |
|---|---|---|---|---|
| 12h30 | Exercise: How We Conserve Food? | In pairs, participants are asked to reflect on traditional or otherwise known ways in which food can be preserved, followed by collective sharing. | Ex. 8 - 'Food Conservation' (p. 49) | |
| *13h00* | *Lunch Break* | *Ensure you have communicated with the caterers well in advance that the lunch that will be served indeed consists of a healthy and balanced meal and any special dietary needs are taken care of. Also make sure that no cool drinks are served, only water and juice (ideally mixed 50/50 with water).* | | |
| 14h00 | Reflecting on our Lunch | Let's just quickly reflect on what we just ate, looking at it with new lenses in terms of variety, proportions, and ways in which it has been prepared. | - | |
| 14h15 | Food Preservation, Storage and Waste Reduction | Facilitate Discussions on food waste as a problem on household level. Also highlight problems of food waste on national and global level in our societies. | Info 8 - 'Food Storage' (p. 50) | NAFSAN Poster: 'Composting' |
| 15h00 | Recap of Workshop and Introducing Final Exercise | Highlight what was covered, starting from malnutrition (under-/overnutrition, incl. sugars, fats, and unhealthy eating habits), to food groups, ideal meals, and challenges around putting the ideal food on our plates. second day started with where life begins, importance of breastfeeding and maternal and child nutrition. Lastly, we looked at the food cycle, from production to preparation (incl. food safety and hygiene), preserving and reducing food waste.<br>Small group discussions likely to start already during the nutrition break. | Ex. 9 - 'Ways Forward' (p. 53) | |
| *15h15* | *Nutrition Break* | *Be aware of healthy snacks being served, such as fruits and sandwiches. Avoid sweet snacks and cool drinks, rather mix water with juice 50/50.* | | |
| 15h30 | Challenges, Opportunities and Ways Forward | Joint Reflections: as per exercise instructions. Makes sure time is well managed because quite some interesting answers may be given which may lead to more in-depth discussions. Apply your best facilitation skills here.<br>Additional tips may help facilitators add helpful suggestions to any identified ways forward, depending on which type of group one is working with. | Ex. 9 - 'Ways Forward' (p. 53)<br>+ Facilitation Tips (p. 76) | |
| 16h30 | Final Evaluation | Hand out evaluation forms, with the part to be given back to participant | Evaluation, p. 89 | |
| 16h45 | Closing Round | Closing Round: *"What was most important for me in this training was…"* | - | |
| 17h00 | | End of Nutrition Training | | |

# 3. INTERACTIVE SESSIONS AND EXERCISES

## FIRST DAY – PART 1: NUTRITION AND MALNUTRITION

### INTRODUCTION: NUTRITION QUIZ (EXERCISE 1)


This exercise serves to break the ice, get conversations started, and touch on some key nutrition-related aspects, and it gives facilitators a first impression of participants' level of understanding and their already existing experiences. To a certain degree, it also allows insights into initial group dynamics and may show facilitators if there are any 'difficult characters' in this group.

By facilitating this very first group exercise skilfully, an atmosphere of listening and respecting one another's viewpoints and personal experiences starts being cultivated.

#### RESOURCES NEEDED:

Sufficient space


Make sure there is enough space for people to stand along an invisible imaginary line on the floor. Explain that one end of the line represents 'Yes' and the other represents 'No'.

Tell the group that you will read out a few short statements, and that you will ask everyone to 'vote with their feet' (all at the same time), so that they will position themselves according to what they know or believe to be true at this point, depending on each statement.

Read the statements below aloud. Pause after each one, for people to position themselves between 'yes' and 'no', emphasizing that there is also lots of space in the middle for "I don't know" or "I am in the middle", and that "mostly yes" or "mostly no" are also valid options.

After people have positioned themselves to a statement, ask a few people to share why they stand where they stand. Deliberately choose people from different places along the spectrum to share their views. Hereby make sure that everyone listens when someone speaks. Ask everyone to understand *'where that person and his/her view is coming from'*.

Be cautious to avoid debate-style discussions where people would start arguing and try to convince each other. If necessary, remind people that this exercise is just about noticing where we are in our understanding of nutrition as we begin this workshop journey.

At the end of a few people's brief sharing after each statement, you may provide a very short (1-2 sentences only!) answer or comment, to possibly rectify existing assumptions that may otherwise be too misleading. Yet, keep in mind that this exercise is not about in-depth explanations or providing substantial input (this will come later, and you can and should refer to the fact that detailed information is still going to come later).

This particular exercise here merely serves the purpose of making people a bit more curious and to get us started by finding out where we all are in our learning journey about nutrition.

Here are the statements for you to read, together with some helpful notes about what aspects could be expected to come up or what you would want to listen for.

| QUESTIONS / STATEMENTS: | KEY ASPECTS TO LISTEN FOR / COMMENTS: |
|---|---|
| 1) ***A well-balanced diet and healthy eating can prevent some diseases and even assist treatment.*** | *YES – healthy eating habits (= a 'balanced diet) have significant proven health benefits as it strengthens your immune system, and it can help with treatment and recovery from a wide variety of diseases.* |
| 2) ***Malnutrition only happens when people don't have enough to eat.***<br><br>OR<br><br>3) ***Most Namibians eat healthy enough. Only those who are poor have nutrition-related problems.*** | *NO – over-nutrition (eating too much and being overweight or even obese) is also a form of malnutrition, with high risk of Diabetes, high blood pressure, liver/kidney failures, heart diseases, arthritis etc., which shorten people's lifespan and increases medical costs for individuals and society.*<br>*There is also what is called "hidden hunger" = (Micro-nutrient Deficiency) whereby the food that one eats doesn't contain all the nutrients needed.*<br>OR<br>*NO – 1,5 million (58%) Namibians are food insecure (FAO 2022), so they cannot afford healthy eating habits, while Namibians in general like sweets, snacks, and over-consume meat, fat (e.g. cooking oil), sugar and salt, while not eating enough fresh fruits and vegetables.* |
| 4) **Even a bit of smoking and alcohol during pregnancy is a risk to the baby's health.** | *YES, babies in the tummy may have deformities, can be born early/ prematurely, and their body/brain will be less developed, with effects lasting for a lifetime.* |
| 5) ***It is good to give babies thin mahangu or maize porridge after the first 2-3 months.*** | *NO – exclusive breastfeeding for 6 months! After that, babies should receive their first foods (= complimentary feeding) while breastfeeding continues until 2+ years of age*. |
| 6) ***Meat is the best and only source of protein***. | *NO – besides eggs, milk, yogurt, and cheese there are also beans, lentils, groundnuts (incl. peanuts), tofu etc.* |
| 7) ***Some of the food that I eat comes from my own garden or field.*** | *Great, way to go! Encourage participants to do more.* |
| 8) ***I know how to preserve and conserve food.*** | *Important to see how many participants have such a knowledge already, when we come to this part later.* |
| 9) ***I have a compost at home.*** | *Interesting to see – more info will also be shared.* |
| 10) ***Namibia is easily able to feed its own people in the next ten years.*** | *NO – Namibia still has a long way to go, with over 60% of our food in 2021 having to be imported.* |
| 11) **How many teaspoons of sugar do you usually put into your tea?**<br><br>NOTE: **Slightly changes instructions for this last question.** | **Adapted INSTRUCTIONS here:**<br><br>**Instead of the 'Yes' - 'No' line, ask participants to imagine a line of numbers on the floor, with '0' (zero) on one end and '6' (six) on the other end. Or ask participants to indicate the number by showing with fingers on their hand.**<br><br>*Share with participants that you will get to the issue of sugar in drinks and food later in more details.* |

When listening to the answers, start with the 'wrong' answers and end with the 'right' ones for each question.

This helps participants learn from each other.

Ensure not to enter long discussions but rather refer to future sessions that will cover these topics in more detail.

## UNDERSTANDING MALNUTRITION: UNDER-NUTRITION (INFO 1)

MORE INFO P.54

This information-sharing session serves to introduce participants to the most common forms of malnutrition with a focus on children, while creating a shared awareness as to why all of us need to work together in overcoming all forms of malnutrition. It is meant to be both educating and motivating, and it shouldn't be a lecture but rather a facilitated discussion.

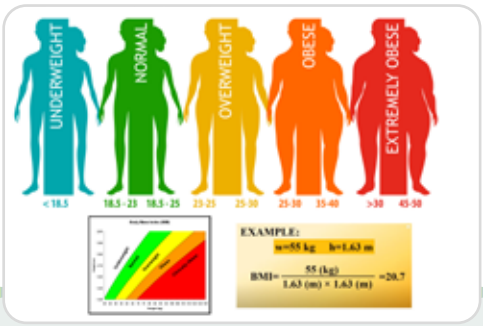
The following slides are to be shown to participants, with instructions or probing questions for each slide. Please note the 'Key Message' will also be printed on the back of each slide.

### OVERVIEW OF SESSION 1.1: 60 MINUTES

1. Body Mass Index (BMI) Scale – for adults
2. Growth Charts – for children
3. Malnutrition = Under-nutrition and Over-nutrition
4. Dangers of Under-nutrition: Wasting and Stunting
5. The first 2-3 years: A key window period!
6. Stunting: Effects (long- and short-term), Costs, examples and breaking the cycle
7. Severe Malnutrition: Marasmus and Kwashiorkor (incl. Signs and Symptoms)
8. Micro-nutrient Deficiencies, incl. example: Anemia (iron-deficiency)

### SLIDE 1.1. – BODY MASS INDEX (BMI) SCALE – FOR ADULTS

Share that it is natural for all of us to have differently sized and shaped bodies. Yet in terms of health, the Body Mass Index (BMI) is a simplified but helpful way for adults to spot malnutrition in general: underweight or overweight, which increases risks of diseases and may be associated with unhealthy eating habits/disorders. Low or high BMI is often an important warning sign that we are somehow out of balance.

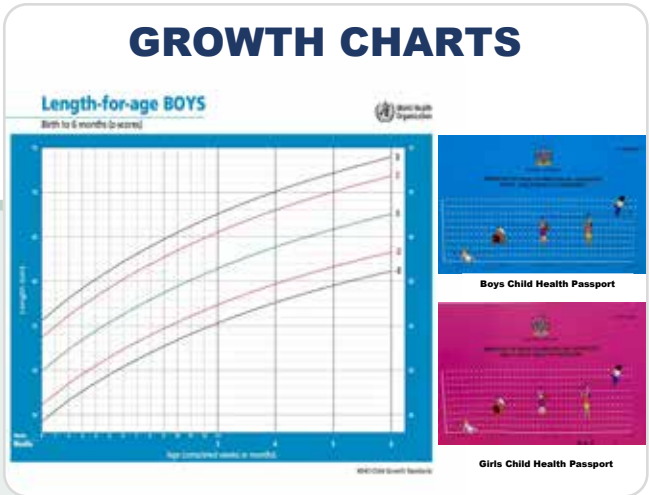



**Key Messages:**

Body Mass Index (BMI) is a simple calculation using a person's height in metres and weight in kilograms.
The formula is BMI = kg/$m^2$.
For example, 55kg divided by 1.63 x 1.63 (height x 2) = BMI of 20.7 (kg/$m^{2)}$
Highlight the 5 categories (= underweight, normal, overweight, obese, extremely/clinically obese) using the BMI scale.

### SLIDE 1.2. – GROWTH CHARTS – FOR CHILDREN

Explain how these growth charts are part of the 'Child Health Passport' that every newborn baby receives at the hospital or clinic when they are born. This is one more reason why it is so important to register every child's birth.




**Key Messages:**

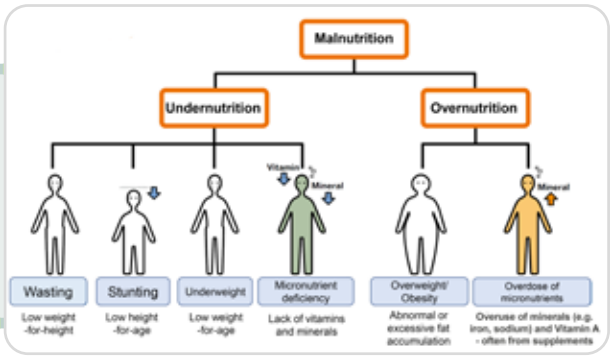
Growth Charts for boys and girls help to see if a child's weight and height are 'on track' (= in a normal range) or if there is any reason for concern or need support or health-related interventions.

Regular check-ups and visits to clinics are important, especially in the first years of a child's life. As parents/guardians, remind/request the nurses to plot the growth chart to keep track.

## SLIDE 1.3. – MALNUTRITION: UNDER-NUTRITION AND OVER-NUTRITION

Explain that people often only think of malnutrition as under-nutrition. Yet, this is just one side of the coin, which we will focus on in the first part of this morning. Briefly highlight the 4 different forms of under-nutrition.

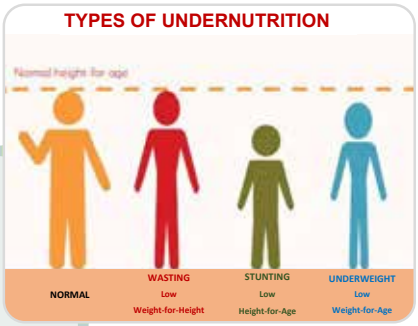
NOTE: Keep this slide visible till the end of the session.




> Key Messages:
>
> There are 2 different types of malnutrition: over- and under-nutrition
>
> We now focus on forms of under-nutrition:
> wasting, stunting, underweight, micro-nutrient deficiency.

## SLIDE 1.4. – DANGERS OF UNDER-NUTRITION: WASTING AND STUNTING

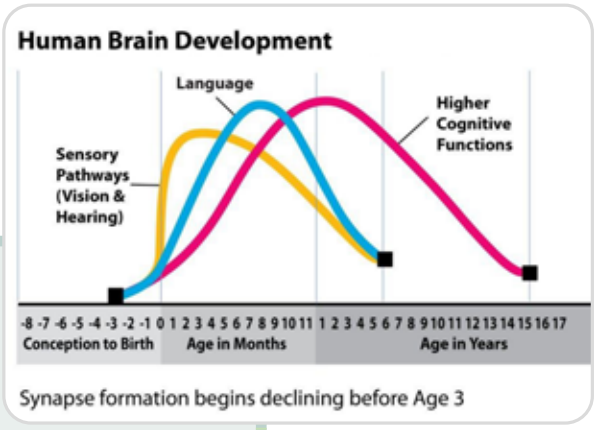
Explain the main forms of under-nutrition in young children so that we can spot and prevent the most common and dangerous forms: Wasting and Stunting.




> Key Messages:
>
> Underweight = Weight is too low for their age
>
> Wasting = Weight is too low for their height
>
> Stunting = Height is too short for their age

## SLIDE 1.5. – THE FIRST 2 YEARS: A KEY WINDOW PERIOD!

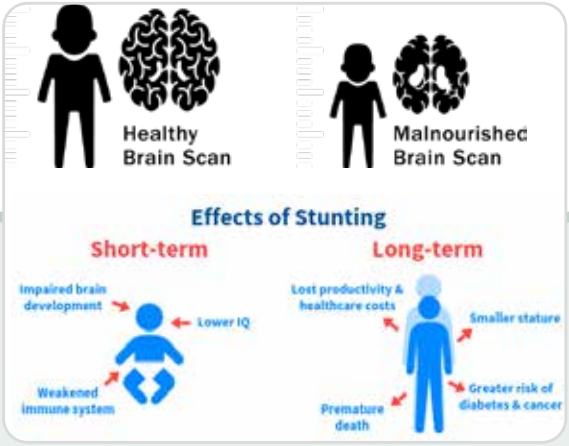
Highlight how the first 2 years are the foundation (more info tomorrow during *'First 1,000 Days'*), show how much brain development happens, and that this period is the window of opportunity to address any malnutrition issues, as damages from stunting are irreversible after 2 years of age.




> Key Messages:
>
> Most neural connections (synapses) in the brain built/developed before the age of 3 years, with up to 700 - 1,000 neural connections being established per second in the first 1-2 years.
>
> These are responsible for seeing, hearing, language, and 'higher cognitive functions', such as thinking, reasoning, concentrating, remembering, problem-solving and our overall understanding of the world.
>
> 90% of brain development is completed by the age of 5 years.

## SLIDE 1.6.A. – STUNTING: EFFECTS ON INDIVIDUALS

Show how malnutrition (stunting) not only impacts the growth of the body (height) but also brain development. Highlight some short-term and long-term effects of stunting on people in their adolescent and adult lives.




> Key Messages:

Differentiate between the healthy brain of a normal child and the brain of a stunted/malnourished child.

If stunting is not addressed and treated within the first 2 years, its effects are irreversible!

Short-term effects of stunting (weak immune system, slow brain development etc.)

Long-term effects of stunting (stunted growth, low productivity, risk of Diabetes and cancer)

## SLIDE 1.6.B. – STUNTING: COSTS FOR SOCIETY

Show how stunting not only reduces the intellectual and social capacities of individuals, but that it impacts the creativity and production of a country and economy, with national financial losses of up to 16% of its country's GDP.


> Key Messages:

Stunting increases child mortality (deaths), and it reduces average IQ scores and income opportunities.

On a national level, it costs Namibia N$ 11,1 Billion or over 5,2% of our national GDP, every single year; according to the Namibian Cost of Hunger in Africa (COHA) Study in 2021
- *www.nafsan.org/resources*

## SLIDE 1.6.C. – STUNTING: A REAL-LIFE EXAMPLE

Show participants this slide and ask them which of these boys is malnourished. The height and pot belly are clear signs that it is the boy on the right, and you can then also reveal the boys' ages, together with sharing this short village-story here: *www.youtube.com/watch?v=GRALCqNfTlM at 18min 25sec* (Van Wyk, 2021)

> Key Messages:

Let them guess the children's ages and thereafter reveal
(FIRST = 2 years, SECOND = 4 years, THIRD = 5 years)

Physical signs of stunting of the third child: 'stunted growth' (= short in height) and 'pot belly'

## SLIDE 1.6.D. – STUNTING: VICIOUS CYCLE

Emphasize the very real problem of stunting not being reversible after the age of two (2) years, and that it can only be overcome when we understand and counter this vicious cycle of stunting/malnutrition over multiple generations.


> Key Messages:
>
> The vicious cycle of stunting:
> Infant (small child) -> young girl -> pregnant woman -> underweight baby
>
> Stunting does not only affect girls, but also boys'/men's sperm production and the DNA in it. Stunting is irreversible, but can be prevented through early nutrition interventions in the first 2 years (= first 1,000 days), or we can break the cycle of stunting/malnutrition over more than one generation.


**AT THIS POINT, ASK PARTICIPANTS AND THEN SHARE ANSWERS/STATISTICS**

- ***How many Namibian children under 5 are stunted?***
  - *23.7% (NDHS, 2013) = ¼ of all Namibian children (± 70,000)*
- ***How many cases of malnutrition are being treated in Namibian hospitals and clinics per year?***
  - *…and how many children die of malnutrition per year?*
  - *± 5,000 cases of malnutrition are treated per year, of which ± 600 are mortalities = malnutrition deaths(!), which is a ± 12,5 % mortality rate (MoHSS and WHO, 2022)*

Explain to participants that you will now provide **several examples of severe malnutrition**, because of the great need for awareness, knowing the signs, intervention, and prevention, especially because **Moderate Malnutrition can easily turn into Severe Acute Malnutrition!**

The most common forms of malnutrition in children are moderate or severe malnutrition, which includes Marasmus and Kwashiorkor.

## SLIDE 1.7.A. – SEVERE MALNUTRITION: LACK OF ENERGY (MARASMUS)

Marasmus results from an overall lack of energy in food or drinks, meaning these children do not get enough "macro-nutrients" (= carbohydrates, fats, protein and any type of food)

→ More information on Slide 1.8.A. and under Food Groups.

People with Marasmus lack the ability to grow and even lack the 'fuel' necessary to maintain normal body functions. Contributing factors to Marasmus are inadequate breastfeeding, early weaning (= to stop breastfeeding), poverty, food scarcity, parasites and infectious diseases.

**MARASMUS**

> Key Messages:
>
> Define Marasmus as a lack of energy intake through drinking and/or eating.
> Causes of Marasmus: infectious diseases, lack of food, not breastfeeding enough etc.

## SLIDE 1.7.B. – SEVERE MALNUTRITION: LACK OF PROTEIN (KWASHIORKOR)

*ASK:* ***Do you think this boy is malnourished?***

This image shows 'Kwashiorkor', commonly known as 'Lack of Protein' and other nutrients, such as vitamins and minerals.

Further engage around how common this form of malnutrition may be in Namibia, and how harmful some of our cultural practices are, such as when giving meat mostly to the 'head of the house' and not to the children, who would need it the most, as they still need to grow!

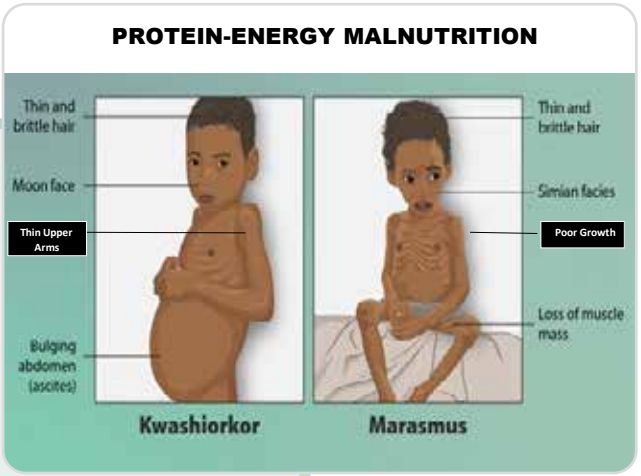
### Key Messages:

Define Kwashiorkor as mostly a lack of protein (but also of other nutrients, with research still ongoing), e.g. children having access to carbohydrates (e.g. pap or bread) but little protein in their diet.

Causes of Kwashiorkor: not eating enough diverse and protein-rich food from animal or plant sources (more information later, under "No. 2: Food Groups"), as well as poor hygiene, and infectious diseases.

## SLIDE 1.7.C. – SIGNS AND SYMPTOMS OF MARASMUS AND KWASHIORKOR

Highlight the importance of spotting signs and symptoms of these 2 types of malnutrition as early as possible, to allow for positive interventions. Both, Marasmus and Kwashiorkor are most common in children and dangerous, so it is important for everyone to know typical signs and symptoms.




### Key Messages:

**Marasmus** - Signs&Symptoms: old man/woman face, thin hair, dry skin, diarrhea, severe weight loss, loss of muscle mass and fat, poor growth, fatigue, reduced body functions and intellectual capacities.

**Kwashiorkor** - Signs&Symptoms: enlarged tummy (pot belly), ribs visible, moon face, changes in skin color, dry hair, swelling (edema) of feet and ankles, failing to grow or gain weight, loss of muscles, flaky rash, diarrhea, fatigue, and irritability.

## SLIDE 1.8.A. – UNDER-NUTRITION: 'HIDDEN HUNGER' (= MICRO-NUTRIENT DEFICIENCY)

Use this slide to transition into "Hidden Hunger"; explain that 'macro' means 'large' and 'micro' means 'small'. Therefore, macro-nutrients are needed in large quantities for our body and mind to function, grow and develop. Micro-nutrients are needed regularly but in lesser amounts. They are important for us to fight and prevent diseases and repair cells.


### Key Messages:

'**Macro**' = nutrients that are needed in large amounts, such as carbohydrates, proteins, and fats

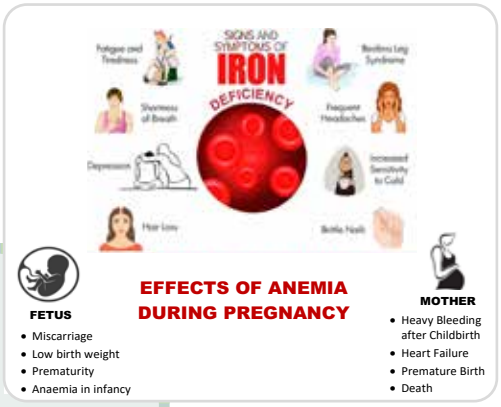
'**Micro**' = nutrients that are needed in small amounts but regularly(!), such as vitamins and minerals

→ *All of these will be explained in more detail later under 'Food groups'.*

## SLIDE 1.8.B. – MICRO-NUTRIENT DEFICIENCY (EXAMPLE: IRON DEFICIENCY ANEMIA)

This slide on anemia is an example of micro-nutrient deficiency.

Lack of iron is especially critical in women who give birth, as it is closely linked to stunting and very common in Namibia: Women (15-59 years) = 25% + Children under 5 years = 46% (SUN, 2022). Namibia is currently far from meeting its targets in reducing anemia in women and in children. (Global Nutrition Report, 2022).




> Key Messages:

Iron Deficiency Anemia (IDA) – Signs/Symptoms: tiredness, hair loss, dizziness, shortness of breath

Anemia can be very dangerous during pregnancy, affecting the fetus: low birth weight, birth defects, etc.

Effects on the mother: premature birth, heavy bleeding after giving birth, heart failure and even death.

## SLIDE 1.8.C. – MICRO-NUTRIENT DEFICIENCY – SOURCES OF IRON-RICH FOODS

Highlight the need for correct iron supplements during and after pregnancy, as recommended by the doctors and health professionals at clinics and hospitals.

Also, use this slide to show the main natural sources of iron and emphasize the important role iron-rich food plays in preventing anemia, and the importance of a healthy and diverse diet to prevent all forms of micro-nutrient deficiencies (hidden hunger).


> Key Messages:

Recommended supplements during pregnancy: iron and folic acids

Food rich in iron (= natural sources of iron): spinach (mutete), legumes (chickpeas, beans, etc.), pumpkin seeds, broccoli, liver, red meat, fish, dried fruits and nuts.

## SLIDE 1.8.D. – UNDER-NUTRITION: MICRO-NUTRIENT DEFICIENCY – TYPICAL OTHER ONES

Mention that there are many other possible forms of micro-nutrient deficiencies, so people need to be aware of some symptoms for some of those that present major challenges for us in Namibia, besides anemia (iron deficit).

These are lack of Vitamin A, Zinc, Iodine and Folic Acid (Folate/Vitamin B9).


> Key Messages:

Common micro-nutrient deficiencies in Namibia and foods that contain it: Iron, Vitamin A = carrots, butternut, sweet potato, kale, spinach, mango, watermelon, orange, guava, liver and cheese

Iodine = iodized salt, seaweed, fish, dairy (milk, yogurt), eggs and prunes

Folic Acid (or: Folate/Vitamin B9; very important for pregnant women) = legumes (beans, peas, lentils), eggs, asparagus, leafy greens (spinach and kale), citrus fruits (lemons, oranges etc.), sprouts, broccoli, nuts and seeds.

## UNDERSTANDING MALNUTRITION: OVER-NUTRITION (INFO 2)

MORE INFO P.56


- ***How many spoons of sugar did everyone put into their tea/ coffee just now, during the break?***
- ***How many Namibians do you think are overweight or obese?***
- ***Does obesity affect more men/boys or more women/girls?***
  - *Take note of responses on the flipchart or simply remember them for when you reveal the statistics during the second slide (Slide. 2.2).*

## OVERVIEW OF SESSION 2: 30 MINUTES

1. Overweight and Obesity - Introduction
2. Obesity: A Global Pandemic
3. Risks and Costs of Obesity
4. The Namibian Situation
5. Causes of Obesity?
6. Childhood Obesity… a growing concern
7. What can we do about it?

## SLIDE 2.1. – OVER-NUTRITION: OVERWEIGHT (BMI: 25-29.9) + OBESE (BMI: 30+)

*Let's talk about the 'Kapunda',* …is how you could jokingly begin this session, yet be aware that this is a sensitive topic. Some participants may themselves be overweight. So, talk about over-nutrition in ways that allow people to share personal experiences without guilt or fear of being body-shamed. Ensure this is a safe space for learning through sharing and discussions. Highlight how gaining weight and being 'fat' is in some cultures seen as a sign of health, wealth, and well-being, and that children are being well-fed. However, this may come with some real health risks that you are going to explore together now.

Explain that for adults, a BMI score above 25 indicates overweight and over 30 is obese, while for children the chart in their child health passport shows if they are overweight.

Let's talk **Overnutrition:**

**Overweight** = BMI: 25-29.9
+ **Obese** = BMI: 30 +

> Key Messages:

In some cultures, weight gain is seen as a sign of wealth and well-being, yet there are real health risks to it.

**Adults**: Overweight = BMI: 25 – 29.9 kg/m$^2$ and Obese = BMI: 30 kg/m$^2$.

NOTE: BMI is a screening tool and not an indicator of overall health.

**Children**: See the Growth Chart if they are overweight, yet this is often visible. Changes to eating and behavior habits are to be made as early as possible in life to ensure a healthy future for individuals.

## SLIDE 2.2. – OBESITY: A GLOBAL PANDEMIC

Invite participants to now explore over-nutrition as both a global and Namibian phenomenon. While we all remember Covid as a very visible 'global pandemic', there is a much more silent pandemic on its way: Obesity, and especially in Namibia we experience what is called the '**double burden of malnutrition'**.

Highlight how obesity is a problem for many so-called 'developed' countries, yet it also more and more spreads into Africa, as we unconsciously adopt certain eating and consumer habits.

**Obesity** [2017] = the **leading preventable cause of deaths** = **4.7 million globally**, **8% of global deaths** attributed to obesity.

**Worldwide**: 2 billion+ adults overweight (**40%**), 650 million are obese (**13%**)

### Key Messages:

**Globally** = Leading cause of preventable death (8% of the global population), with more than 2 billion people (40%) being overweight and more than 650 million even obese (13%)

**Namibia** = Double burden of Malnutrition' + over 40% overweight, almost 20% even obese – with more women being overweight/obese than men, and also young people being increasingly overweight.

NOTE: Namibia has limited up-to-date data, so statistics at this point are just estimated figures.

## SLIDE 2.3. – CONSEQUENCES OF OVERWEIGHT AND OBESITY

Use this slide to speak about health consequences for individuals, mainly chronic diseases, such as high blood pressure, kidney, liver or heart diseases and strokes, as well as different forms of cancer – referred to as "non-communicable diseases".

Mention that 90% of Diabetes II (type 2) patients are obese. Obesity-related health issues not only affect individuals but their families and work environment, with increasing costs for medical care and other measures and costs for societies at large.


### Key Messages:

Consequences of Obesity: High blood pressure, type-2 Diabetes, depression, stroke, cancer, and increased health costs while having a shorter lifespan.

Diabetes often comes with excessive thirst and urination, blindness, numbness in toes and fingers (gangrene), delayed wound healing, loss of limbs, kidney failure and need for dialyses

Costs can also be high for family, colleagues, and society at large in terms of health system costs.


***With DIABETES, your body doesn't make enough insulin or can't use it as well as it should. When there isn't enough insulin or cells stop responding to insulin, too much blood sugar stays in your bloodstream. Over time, that can cause serious health problems, such as heart disease, vision loss, and kidney disease.***

## SLIDE 2.4. – MAIN CAUSES OF OBESITY

Start by asking the group about possible causes of obesity before showing this slide. Emphasize the main causes (quality and quantity of food intake, lack of physical activity), yet also highlight how genetics, stress, trauma, depression and other mental health challenges can be key contributors, yet these are often not seen and not very much recognised as underlying root factors.

Highlight that unhealthy eating/consumer habits are not just an individual problem but reflect the collective culture of a country and society, for instance when we look at the lack of healthy choices in advertisements or at take-aways in supermarkets or petrol stations.


> Key Messages:

**Main Causes**: eating too much junk food, lack of exercise, and not getting enough sleep

**Often Unknown Causes**: genetics, stress, trauma, mental health, too much TV/electronics

## SLIDE 2.5. – CHILDHOOD OBESITY: A GROWING CONCERN

This slide shows that childhood obesity is real and how it manifests. Highlight the irony that childhood obesity is on the rise in Namibia, while ± 600 children die of under-nutrition each year and almost 60% of people are food insecure (FAO, 2022).

**In Namibia, 4 % of children under 5 years and ± 20% of children between 5-19 years are already overweight or even obese.**

Global Nutrition Report (2020)

> Key Messages:

Over 4% of children under 5 are overweight, as well as ± 9% of teenage boys and ± 20% of teenage girls.

Emphasize the importance of good eating habits at a young age, as this is when our taste-buds and habits are being formed. *Therefore, no sugar and no electronics until 2 years, or at least as little as possible!*

## SLIDE 2.6. – OBESITY – TREATMENT AND PREVENTION

Use this slide to share that there is hope and several things one can do and various ways to treat and prevent overweight and obesity, and to reach a healthy weight and balance.


> Key Messages:

Obesity can be prevented and treated.

Different ways: regular physical exercise and less screen time, more sleep, healthier eating patterns, portion control and eating more consciously (e.g. no sweets, alcohol, soft drinks or late-night snacks), while there are also medical interventions (like medication or surgery) for very serious cases.

## SLIDE 2.7. – ROAD TO HEALTH: OURSELVES AND OUR CHILDREN

This slide serves to spark critical thinking. Facilitate a brainstorming on: ***'How can we turn around current trends and overcome over-nutrition-related challenges in Namibia for us and for future generations?'***

Write ***"Ourselves"*** and ***"Our Children"*** on 2 flipcharts and ask participants to suggest what we can do. Writing any valuable suggestions on the respective flipcharts, and add from your perspective what may be helpful for the group, for instance:

*The road to better health and more balanced nutrition…*

What can we do **for ourselves** and **our children**?

- ***<u>Ourselves:</u> Change eating habits (less sweets, more veggies/fruits), introduce sugar tax***
- ***<u>Our Children:</u> Breastfeeding, promoting and role-model drinking water, mixing juice with water, no (or hardly any) cooldrinks, eating the whole fruit, limiting screen time, more active play outside.***

> Key Messages:
>
> Show the image: 'You are what you eat' and let the difference between the images sink in.
>
> Brainstorm on healthier eating habits for firstly 'ourselves' and secondly 'our children'

## SUGAR AND ME (EXERCISE 2)


This exercise will provide participants with a direct sensory experience, aimed to challenge (in a positive way) their habits of sweetening hot beverages, as well as consumption of sweet beverages (cool drinks), sweets and sweet stuff (= added sugar') in general.

It is meant to provide a healthy reality check regarding what we think is 'necessary' (out of habit) versus what our taste buds find 'sweet enough'.

### RESOURCES NEEDED:

- 6 x 1-liter bottles (marked A, B, C, D, E, F) filled with Rooibos tea, each one with a different sugar level (randomly across the differently marked bottles)
- 1 cup per participant to taste the teas from the different bottles
- Water for people to sip on in between the teas with different sugar levels
- Print-out of rating scale (per person) → See **Worksheet 1** (p. 81)


## ADVANCE PREPARATIONS (MADE BEFOREHAND):

Make sure you prepare the 6 x half liter bottles a day in advance as follows:

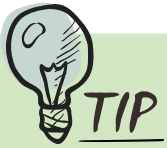
6 x half liter of boiled water with 5 bags of Rooibos tea bags per 1 liter of water.

Mark the bottles with letters from A to F and place them in a random order in front of you, as you start filling them with sugar. Write down how much sugar you added into which bottle (e.g. C = 1 teaspoon; A = 2 teaspoons; F = 3 teaspoons etc.).

Add sugar [recommended before you add the liquid] to the 6 bottles as follows:

1st bottle = 2.5 teaspoons, equals half teaspoon (± 5 grams) per 200ml (normal cup size)
2nd bottle = 5 teaspoons, equals 1 teaspoon (± 10 grams) per 200ml (normal cup size)
3rd bottle = 7.5 teaspoons, equals 1.5 teaspoons (± 15 grams) per 200ml (normal cup size)
4th bottle = 10 teaspoons, equals 2 teaspoons (± 20 grams) per 200ml (normal cup size)
5th bottle = 12.5 teaspoons, equals 2.5 teaspoons (± 25 grams) per 200ml (normal cup size)
6th bottle = 15 teaspoons, equals 3 teaspoons (± 30 grams) per 200ml (normal cup size)

NOTE: It makes a difference whether we use a leveled or a heaped teaspoon of sugar, as a level teaspoon holds 4 grams, while a heaped teaspoon holds 7.5 grams of sugar.




Only fill the tea into the half liter (500 mL) bottles once it has cooled down to lukewarm temperatures, as hot water/tea will damage the bottle and micro-plastic may dissolve in the tea.

## INSTRUCTIONS: 45 MINUTES

Ask participants to join you in a blind tasting of tea, because we Namibians are quite famous for loving our tea really sweet. So, let's find out *"How sweet is sweet enough?"*

*Make sure you **announce** that **anyone with Diabetes** should **NOT** participate in this exercise but should rather act **as an observer**. They can assist in the counting at the end.*

Give everyone a cup, a pen, and a cut-out blank rating scale (-> Worksheet 1). Tell them that you will now give them tea to taste with 6 different types of sweeteners, equaling 1 to 6 spoons of sugar per cup.

Have your bottles (A-F) clearly marked and inform participants that the sweetness level of the bottles has been randomly selected, and that they should each now taste and then guess how many spoons of sugar (per 200ml cup) are in each bottle by writing the estimated number of teaspoons (1 - 6) under the fields in the table marked A-F. Participants should make their choices privately without talking with each other. Tell them they can always taste again (have a second or third sip) from a bottle they already drank from, if they are not sure.

After everyone has completed their rating scale, ask participants to keep it as they sit down again in the circle. Now ask them by 'show of fingers' how many sugar spoons were in bottles A, B, C, D, E, and F, according to their rating scale. Notice how it is fairly easy for people to differentiate between 1, 2 and 3 spoons of sugar, but as from 4-5 spoons it tends to become more difficult to taste the difference. This means the number of fingers that people put in the air may be different for those bottles with 4, 5 and 6 spoons of sugar.

Let people share some feedback about how they liked it and what they learned from it.

Use this opportunity to ask how many people usually put more than 3 spoons of sugar or know someone who does. Encourage them to stop at a maximum of 3 spoons (preferably less), firstly for health reasons but secondly for economic reasons, because reducing sugar in tea may enable some households to cut their sugar budget at least into half and save money.

For comparison: The WHO's recommendation of added sugar per day is 25-50g maximum! Small children under 2 years of age should not be given any added sugar at all.

→ Allow for additional comments and reflections before moving to the next session.

## HIDDEN SUGARS AND FATS (INFO 3)

MORE INFO P.59

The previous exercise has made us more aware of our sugar intake in our coffee or tea, which is where we make deliberate decisions about how much sugar we want (or do not want) to consume. Each spoon of sugar can also be translated into grams of sugar, yet there are many more grams we are consuming unknowingly.

Explain that 1 leveled teaspoon consists of 4 grams of sugar, while 1 heaped teaspoon consists of 7.5 grams of sugar.

Differentiating between natural and added sugars (visible or invisible) is what we are going to explore in this session now, while also learning something new about oils and fats.

### OVERVIEW OF SESSION 3: 30 MINUTES

1. **Sugar: Natural vs. added**
2. **Recommended (added) sugar intake**
3. **Added Sugar: 'Rethink your Drink'**
4. **Artificial sweeteners**
5. **Sugar in our foods**
6. **Fats: Love, Limit, Lose**
7. **Lessons learned for healthy diets**

### SLIDE 3.1. – SUGAR: NATURAL VS. ADDED SUGAR

The picture on top shows where natural sugar is occurring the most, namely in fruits. Yet, natural sugar is also in dairy products, especially milk, as well as in sweet potatoes, bread, legumes, corn, pasta, and rice – as the starch inside of them turns into a form of sugar in our bodies during digestion.

On the lower picture are examples of where lots of sugar has been added to food items during processing. Yet added sugar is not only used to sweeten but also to enhance the flavour, and it is in more food items than one would think, as we will explore now.


**Key Messages:**

Natural sugar is mainly in fruits, yet also in milk or starchy foods, such as bread, corn, pasta, legumes etc. - Because starchy food is converted into sugar in the body during digestion.

100% pure fruit juice (freshly prepared – unlike most ones from the shops) contains no "added sugar", yet the amount of natural sugar in it is still high, as 1 glass of apple juice contains sugar of about 3-4 apples. We would not eat 3-4 apples (or oranges) at the same speed as we drink 1 glass of juice.

A medium-sized apple contains ±15g sugar, yet also healthy fibers and micro-nutrients.

Added sugar is either visibly added (e.g. spoons in tea) or is most often hidden in beverages and all kinds of food, especially ultra-processed food.

Hidden sugar is not only in 'sweet stuff' (see picture), but also in other food, as we shall find out soon.

## SLIDE 3.2. – RECOMMENDED SUGAR INTAKE

Show this slide to convey what the healthy and recommended intake of added sugar is. Highlight that children under 2 years should have no added sugar at all, because their taste buds are still developing. Added sugar overwhelms them and creates pathways for future sugar addiction.

Let people critically reflect on how older children and adults easily exceed their recommended total daily sugar intake (= max. 50g), often just by added sugar alone.


**Key Messages:**

Healthy and recommended maximal total daily sugar intake: under 2 years = no sugar at all!

Maximum added sugar for adults: 50g (10 teaspoons) and 25g (5 teaspoons) for children (2-18 years).

Young children are still developing their sense of taste, so they easily get addicted to sugar at a very early age, yet when raising them without or with less sugar, they will not like sweet stuff too much.

## SLIDE 3.3. – ADDED SUGAR: 'RETHINK YOUR DRINK'

Invite participants to have a look at some of Namibian's most favorite beverages, and to see how much 'hidden' added sugar they contain.

Please note that *'Sunsation'* contains so much total sugar because the milk in it already has natural sugar, in addition to the added sugar.

Facilitate discussions as needed, hereby include the question of drinking water instead may be a possible healthier thing to do, at least on some occasion.


## SLIDE 3.4. – ARTIFICIAL SWEETENERS AND HONEY

Using 'artificial sweeteners' is tempting, yet… The long-term effects are not fully explored and known, and some sweeteners have been linked to cancer. Some of these sweeteners may also affect hunger hormones, leading to overeating which may result in obesity. They may also affect our taste, so that regular sugar may not taste as sweet, leading you to add more sugar. However, artificial sweeteners can be a good option for someone with Diabetes or for those who want to lose weight. Yet, be cautious, especially with "Aspartame", which is not naturally resolving in nature, and is increasingly linked to cancer.


Honey is often praised as a healthy alternative but should also not be over-consumed.

**Key Messages:**

Artificial sweeteners are sugar substitutes, providing a sweetness similar to sugar yet with less food energy.

Risks of artificial sweeteners are unknown and still being explored, with some – like Aspartame – having been linked to cause cancer and Alzheimers, and they may affect our eating habits in other ways.

Honey is good for medicinal purposes, yet it is still a form of 'sugar' and should not be over-consumed.
Honey must not be given to children under 1 year of age! It may cause severe health risks as children need time to develop the necessary enzymes to deal with certain bacteria in honey.
The same applies to Goat milk (only after 1 year of age).

## SLIDE 3.5. – SUGAR IN OUR FOODS

Besides hidden sugars in drinks and obviously sweet food, sugar is also deliberately being added to enhance flavour. Even most salty food that we buy (especially ultra-processed food) often contains large amounts of sugar, with sauces and dressings being among the biggest culprits.


### Key Messages:

Even salty food – especially ultra-processed – contains a lot of hidden sugars, such as tomato sauce, mayonnaise, flavoured yoghurt, and breakfast cereals.

Sugar is added to so many foods and drinks, that it has become an often invisible addiction in our lives!

Advise participants to read food labels.

## SLIDE 3.6. – OILS AND FATS: LOVE, LIMIT, LOSE

Let's also look at another often hidden factor in our diets: oils and fats. Many may have heard about healthy and unhealthy fats. We also don't want to label certain fats 'the bad guys'. However, there are certain fats you should 'love', while rather limit others, and some we should really try to 'lose'.

Even the most healthy food can become less useful or even harmful to our bodies when cooked with too much fat, and Namibians tend to cook with lots of oil, isn't it? Not just for economic reasons (= saving money) should we limit cooking oil, but also for our health.


### Key Messages:

**Benefits of unsaturated fats:** reduce the risk of stroke, boost brain health, good cholesterol level

**Fats to 'Love' (= eat more of):** nuts, oils and seeds, avocado

**Fats to 'Limit':** cheese, butter, saturated fats (animal fats)

**Risks of saturated and artificial fats:** risk of heart attacks, strokes, and type 2 Diabetes

**Fats to 'Lose' (= avoid):** fatty foods (deep fried), pastries (cookies, cakes), margarine, and also Canola oil

**Health Warning:** Reusing (reheating) cooking oil increases risks for cancer, obesity, high blood pressure, strokes, Diabetes, heart diseases, and acidity/indigestion (= burning sensation in throat and stomach).

→ Do not reuse/reheat oil more than 3 times!!!

## SLIDE 3.7. – LESSONS LEARNED FOR HEALTHY DIETS?

Lastly, in this slide we can see 2 different types of food containing the same amount of energy. As you can see, the food on the left contains much more added sugar and those types of fat we should rather 'limit' or 'lose'.

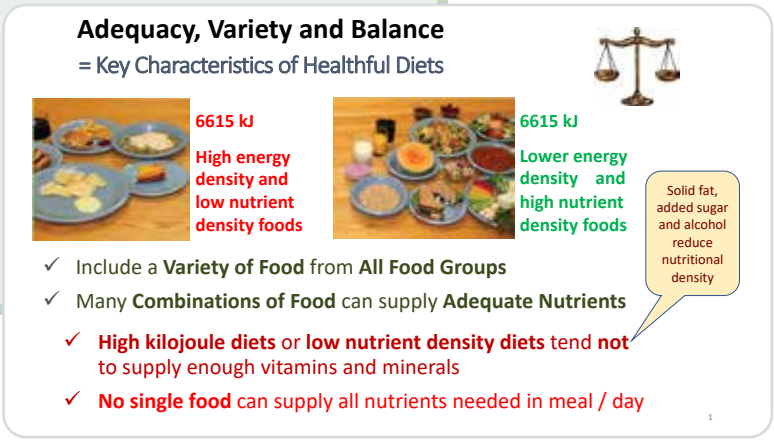
As facilitators, watch this talk on 'Nutrition in Namibia" by C.M. Keyter (2021) to increase your understanding: *www.youtube.com/watch?v=QM2e3-pQii8* and *www.nafsan.org/talks*

### Key Messages:

Healthy means to eat enough (= adequate), different foods (= variety) and not too much from the one or the other (= balance).

Food should come from "All Food Groups" - something we will explore next, after lunch.

Check for and read food labels.




**In conclusion**, let's be aware of how much sugar we consciously take in, but we should also know that a lot of sugar is hidden in drinks, sauces, and most ultra-processed food.

REMEMBER

**Children under 2 years should ideally not have any added sugar at all.**

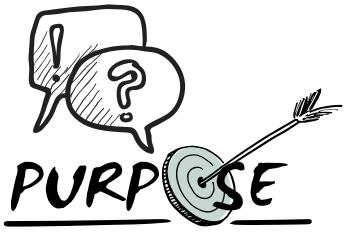
We also learned about different types of fat and that we should definitely reduce the amount of oil that we should use when cooking or otherwise prepare food.

So, with that in mind, let us see what has been prepared for us for lunch…


NUTRITION HOTLINE: **081 555 3888**

MORE INFO P.82

## FOOD GROUPS (EXERCISE 3)




This exercise serves as a conversation starter around healthy eating, in the form of a variety of food in the right proportions, by making people familiar with the concept of food groups interactively and engagingly. It also aims to increase awareness of where we can get enough nutrients, such as protein (e.g. through plant-based sources) or micro-nutrients (= minerals and vitamins, through vegetables and fruits) and which foods to reduce/avoid.

> Key Messages:
>
> Caution against consuming too much ultra-processed food, sugars, and some oils and fats.
>
> Encourage consumption of products that are local, indigenous, natural, organic and as unprocessed as possible.
>
> ***Healthy Diet*** = balanced, with a variety of food that is consumed in moderation.

### RESOURCES NEEDED:

80+ of the 126 **food item cards** from different food groups. (**See p. 82 - 83**).

4 Baskets with signs (plus pegs) for each of the food groups + 6 plates

Water (symbolic), either 1 x 5L bottle or several smaller water containers

Facilitator's Fact Sheet – Food Groups (Exercise 3). (**See p. 82**).


### 60 MINUTES

Start by asking participants how the lunch was and if it was 'lekker'?

Ask, if it was also healthy? …and if so, why? …or why not?

Explain that one determining factor for a healthy meal and what we call a balanced diet has to do with so-called 'food groups', which we are going to explore now.

Facilitate a **brief brainstorming** around what type of food groups/categories they know.

After listening and discussing, mention that there are different ways to categorize food into groups, and that is one of the most common ways, which is also used in *the 'Food and Nutrition Guidelines of Namibia'* (MoHSS, 2000 - *www.nafsan.org/resources*).

1. Place the 4 big baskets on the ground, one for each food group with the name attached to each basket with a peg:

   - **Cereals / staple foods**
   - **Vegetables and Fruits**
   - **Proteins from animal- and plant-sources (e.g. beans)**
   - **Fats, Oils and Sugars**

   **+ Water** = just a reminder, as it is key to healthy living - yet it is of course not a 'food group'

2. Randomly hand out well-mixed laminated food item cards, about 3-4 per participant.

3. Invite participants (all at the same time) to place each of their food items into the basket to which they think this food item belongs. This should take about 3-5 minutes.

4. Once all food items are placed into the baskets, have everyone sit down again while you go through the foods in the 4 different baskets one by one to verify if all the items are in the correct 'food groups' to which they belong. This may take ± 10 minutes.

5. Now, ask for 6 (2 x 3) volunteers and give them each an empty plate which they can fill with suitable food items of their choice, according to the following instructions:

   The first 3 volunteers shall put a typical meal on their plates, meaning something that is representative of what they usually eat on a day-to-day basis.

   The other 3 shall (at the same time) put together an ideal meal, meaning a meal that they would like to have and that they think would be most healthy for them.

6. Once all 6 volunteers are done (3 x typical and 3 x ideal), ask them to present to the group:

   Start with the 'typical meals' and discuss briefly and see if the rest of the group would also agree that this represents a typical day-to-day meal for them.

   Next up are the 'ideal meals'. Notice the food choices they made and highlight the variety (= food from different food groups) that is present on these 'ideal' plates.

7. Finally reflect with the group why they think these 3 plates represent an 'ideal meal'. Use this as a transition into the next session, which will provide more information on the different food groups and why they are important.

NOTE: Depending on the questions, let participants know that more sessions with information on food preparation, food safety and food preservation will still come. There will also be discussions on how we can make sure that we will have more 'ideal meals' on our plates on a daily basis to feed ourselves and our families.

Should there be any nutrition-specific questions that you are not able to answer properly because you do not know, then write down the question. Do some research overnight and share the answer tomorrow morning after or during the first session on "Afterthoughts and Reflections".

***A complete list showing which food belongs in which food group is on pages 81-82.***

## FOOD GROUPS AND NUTRITIONAL VALUE (INFO 4)

MORE INFO P.59

The previous exercise got us thinking about different types of food (= food groups) and we learned that a balanced mix (= variety) of food is what provides us with all kinds of nutrients that we and our children need to grow up and develop well, and to stay healthy.

This session will now explain why all these different types of food are good for us.

### OVERVIEW OF SESSION 4: 30 MINUTES

1. **Healthy Plates: A balanced variety**
2. **Cereals / Staple foods**
3. **Proteins: Animal and plant sources**
4. **Vegetables and Fruits**
5. **Fats, Oils and Sugar**
6. **Benefits of drinking water**
7. **Risk of dehydration**
8. **Dehydration: What to do?**

### SLIDE 4.1. – HEALTHY PLATES: A BALANCED VARIETY

People around the world have studied and researched for decades what a 'healthy diet' looks like, and this **'Healthy Plate'** is a helpful way of showing what a well-balanced variety would look like.

Point out some key aspects visible in this picture.


Key Messages:

Various food groups on a plate are often visible through different colors

Eating a variety of food is important, ideally from each food group

Portion sizes matter: ½ plate = vegetables, ¼ = cereals (staple foods), ¼ = proteins

Fruits should not be part of the main meal but rather as a snack. If eating with the meal then they should be eaten before a meal (or 30 minutes after), because they are being digested much faster!

NAFSAN intends to establish a ***'nutrition hotline'*** which facilitators can easily reach out to for help and support, for example if there are questions from participants that you cannot easily answer. However, the idea is that this hotline is also available for questions from the public.

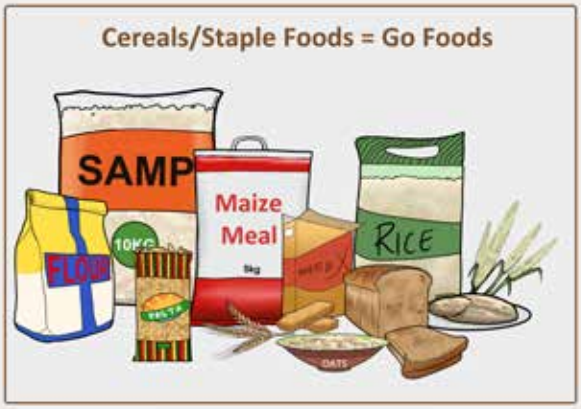
Please check this website for more details and updates: www.nafsan.org/n4h

NUTRITION HOTLINE: **081 555 3888**

## SLIDE 4.2. – CEREALS / STAPLE FOODS

Cereals and cereal products are also called 'staple food', such as oats, millet (sorghum), wheat, rye, corn, rice and barley. We know them in their natural form or as some kind of product that was made out of it (= processed).

They consist of a lot of 'complex carbohydrates' (= high in fiber and starch) and are the body's main fuel source, as the body transforms them into energy. This is why this food group is also called 'GO'-food. They also help to protect our bodies against non-communicable diseases, such as heart disease, Diabetes, and Cancer.




NOTE: There are 2 types of carbohydrates:
Simple Carbohydrates (sugar) and Complex Carbohydrates (which contain lots of fiber and starch).

Provide the most common local examples of staple food, such as pearl millet (= *omahangu*), maize and pumpkin. State that all grains count, but whole grains (in their most natural and unprocessed state = e.g. brown bread/rice) provide the most fiber, vitamins, and minerals.

### Key Messages:

Staple foods (cereals) in their most natural and unprocessed form (e.g. *omahangu* or maize, potatoes, brown bread, brown rice contain "Complex Carbohydrates" with healthy fiber and starch. BROWN bread/rice is recommended.

Important to give the body energy to support all bodily functions and physical activity = **"GO-food"**

There are also "Simple Carbohydrates", e.g. in fruits (yet here together with good fiber), milk and honey, but mostly in refined sugar and candy/sweets. This also gives us "energy" but only for a very short period, and here we can observe an unhealthy 'sugar high' or a 'sugar rush', especially among young children.

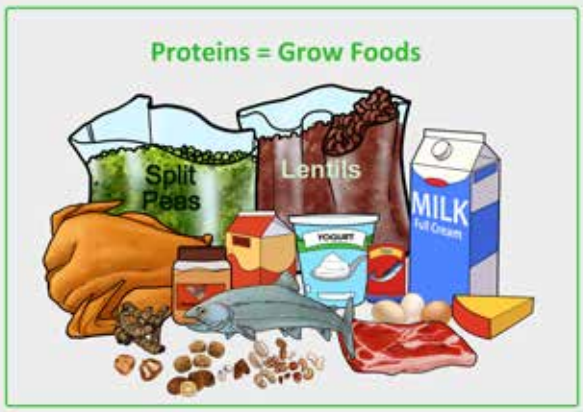
Note, there is no real difference and no health benefit of brown sugar compared to white sugar!

## SLIDE 4.3. – PROTEINS: ANIMAL AND PLANT SOURCES

Protein-rich foods are also known as 'GROW' food, as they support our growth, maintain life, and repair worn-out and damaged cells and body tissues. Proteins also help produce and regulate hormones, supply oxygen, and aid in digestion.

Mention we can get protein from 2 sources and give local examples.

*Clarity on slide: Proteins being 'complete' or 'incomplete' depends on how many amino acids they contain, which are small building blocks that our body needs*.




### Key Messages:

Proteins help maintain life and build and repair damaged cells and tissues = ***"GROW-food"***

Sources = **animals:** beef, chicken, lamb, game, donkey, worms, frogs, eggs, milk, yogurt, *omaere*, …

+ In **plants:** beans (fresh or dried, incl. *oshingali*), Bambara groundnut (*eefukwa*), lentils, split peas, nuts, sesame seeds, peanuts, …

Peanut butter is the healthier/better option on bread, instead of margarine, especially for children.

Consuming more plant-based protein is recommended, as red (beef, game, pork) and processed meat increase health risks, e.g. inflammations, heart disease, cancer, Diabetes, and premature death.

NOTE: Here, we put '*protein*' from plant and animal sources into one food group, while on the GIZ-F4R info sheet (handouts), they are differentiated between *'animal foods'* and *'legumes [beans/peas] and nuts*.

## SLIDE 4.4. – VEGETABLES AND FRUITS

Now that we know what makes us "go" and "grow", let's look at the food that makes us '*GLOW*'. Vegetables and fruits are filled with vitamins and minerals to keep our bodies 'glowing' by keeping our hair, skin, and eyes bright and healthy and improving our overall immunity against diseases.

Give examples of fruits and vegetables (locally available) and highlight their benefits:


Key Messages:

Importance of vegetables and fruits: provide us with important micro-nutrients (= minerals + vitamins) to strengthen our immune system and to maintain healthy hair, eyes and skin = ***"GLOW-food"***

Examples of local **vegetables are**: *ombidi*, *ombowa, mutete*, cabbage, pumpkin, lettuce, peppers and tomatoes.

Dark leafy vegetables such as kale, spinach *(ombidi/mutete/ombowa)* and lettuce = are good sources of iron, calcium, and Vitamins A, C, and K. They strengthen the immune system, slow down signs of aging, and help to prevent heart diseases, high blood pressure, and cancer.

It is the antioxidants, which are compounds found in fruits and vegetables that help protect your cells from damage caused by **free radicals**- can contribute to the development of cancer

Examples of local **fruits**: *eembe (bird plum)*, monkey orange, grapes, oranges, lemons, mango, pawpaw, guava, …

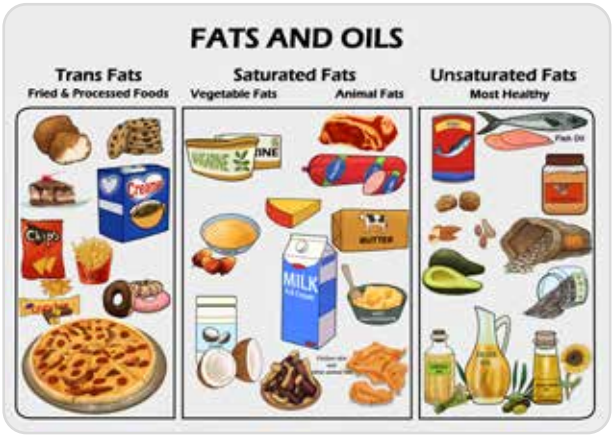
→ Benefits of specific fruits, like mangoes, oranges, apples, bananas, *see: 'Background Information' (p. 58)*

HEALTH TIPS: **Wash all vegetables and fruits** before eating.

*Eat **fruits** before meals or at least half an hour afterward for optimal digestion!*

NOTE: Here, we put 'vegetables and fruits' into one food group, while they are shown as two (2) groups on the GIZ-F4R info sheet (handouts).

## SLIDE 4.5. – FATS, OILS AND SUGAR




Help the body take in Vitamins A, D, E and K, and provide the body with energy

As mentioned previously: highlight that our intake of saturated fats should be limited: e.g. oils, margarine, baked goods, cheese, fatty meat etc.

A lot of hidden oil is present in commonly consumed local foods, such as fat cakes and fried potatoes (fries/chips). Hereby using the same oil over and over again for frying may lead to serious health conditions, such as cancer.

Use as many natural and local oils found in plants (but also in fish) as possible, such as *ondjove* (marula oil), virgin olive oil and pure sunflower oil. Caution: Avoid Canola oil mixes.

> Key Messages:
>
> The importance of fats: help the body take in Vitamins A, D, E and K, and provide the body with energy.
>
> Ideal sources of fats: nuts, avocado, natural local oils, fish and also in natural butter.
>
> Limit consumption: oils (especially canola oil mixes), margarine, baked goods, fatty meat, cheese etc.
>
> Caution = unhealthy hidden fats: fat cakes and warm chips (fries) and fried foods (e.g. sausages, *'russians)*

**TIP**

Eat less fat = cut off the fat from meat and remove chicken skin before cooking.
Remember: Do not reuse and reheat oil, at least not more than 3 times.

→ ***Sugar*** *was already covered during the morning in one of the previous sessions.*

*Remind the group of hidden sugars. For instance, if you drink juice or a cool drink with your meal (instead of water), you add sugars to your meal and therefore to your overall nutritional intake. The same applies when you add a lot of sauce or dressings, which often contain hidden sugar to enhance the taste*.

## SLIDE 4.6.- BENEFITS OF DRINKING WATER


In addition to having a nutritious diet (= balance + variety + moderation), it is important to drink enough water every day, especially in Namibia!

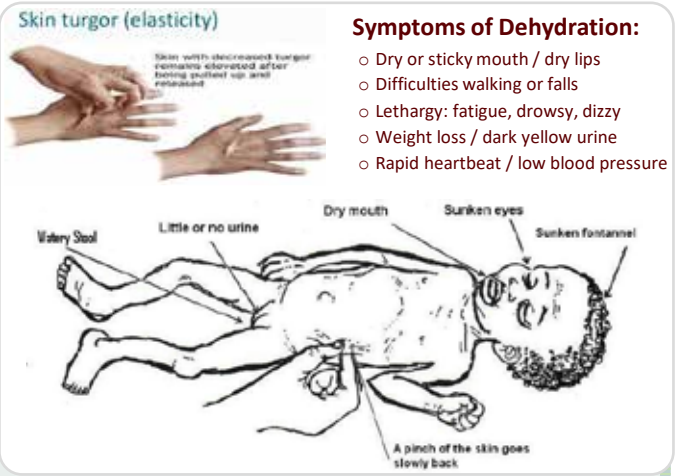
The human body needs water for activities and many internal body processes, such as digestion and transporting of nutrients around the body, and to make blood, saliva, tears and sweat and regulating normal body temperature, meaning to keep the mouth, lips, lungs, and skin moist and also for cooling our bodies.

> Key Messages:
>
> The importance of water = prevents dehydration, allows us to have enough blood, saliva, sweat and tears; ensures healthy body functions, such as digestion and helps keep our body at a normal temperature.
>
> Drink 2-3 liters of water a day (8-10 glasses/cups), most of it in the morning, because our body needs about 3-4 liters of water a day, including water intake through other liquids.

## SLIDE 4.7. – WATER AND DEHYDRATION

Consumption of **clean water** is key (more on that under 'food safety', later!), yet it is also important that we drink plenty of water, especially for breastfeeding mothers, pregnant women, and also children and elderly people!

**DEHYDRATION** is a real problem, especially in a hot and dry country, like Namibia. Demonstrate the 'skin turgor test' and other ways to spot dehydration (see slide). This can be life-saving for babies and young children with pale skin and sunken eyes, as this can deteriorate very quickly.



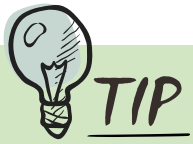

Key Messages:

Water must be clean and safe, otherwise it makes us sick, and we won't be able to make use of it.

Define dehydration as a lack of water and other fluid in the body as a result of not drinking enough water.

Show how dehydration can be detected through the skin-test and other symptoms.

Urge people to take dehydration seriously, especially for babies, young children, mothers and the elderly.

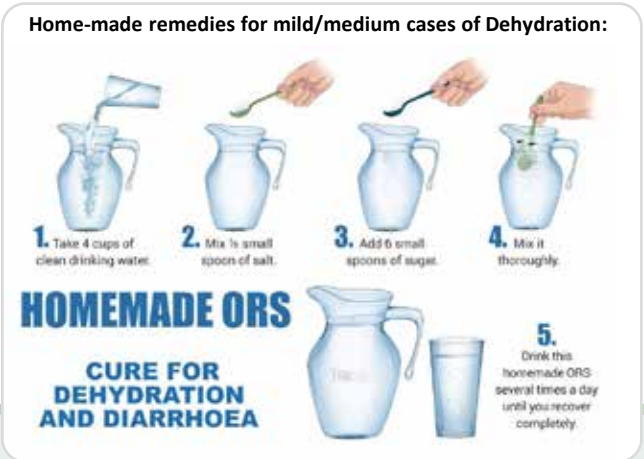



Drinking alcohol dehydrates you, meaning it requires you to drink more water.
Therefore, if you drink alcohol: drink water before, during and after consuming alcohol.

## SLIDE 4.8. – DEHYDRATION: WHAT TO DO?

When spotting signs or experiencing symptoms of dehydration, taking immediate steps and providing first aid can save lives!

In cases of **severe dehydration**, one must see a doctor or nurse at a clinic or hospital to get treated with intravenous fluids!




Key Messages:

Dehydration - First Aid:

Move to a cool and shaded place, consider lying down and raising your legs.

Drink plenty of water (no drinks with alcohol or caffeine!)

Prepare home-made ORS - use the slide to explain how to prepare the solution.

Cases of severe dehydration must be treated with intravenous fluids at clinics or hospitals!

## SLIDE 4.9. – THE NAMIBIAN FOOD GUIDE


Show this to wrap up the session, highlighting that this is the recommended daily intake of different foods from various food groups, for a whole day. It is based on the *'Food and Nutrition Guidelines for Namibia'* which were officially approved by the Cabinet in 2000.

Remind everyone of the need for a variety of food (different colours = all 'food groups), and make sure to drink enough water (8 - 12 glasses) throughout the day.

### Key Messages:

Have a variety of foods from different food groups (various colours = *"eat a rainbow"*) throughout your day.

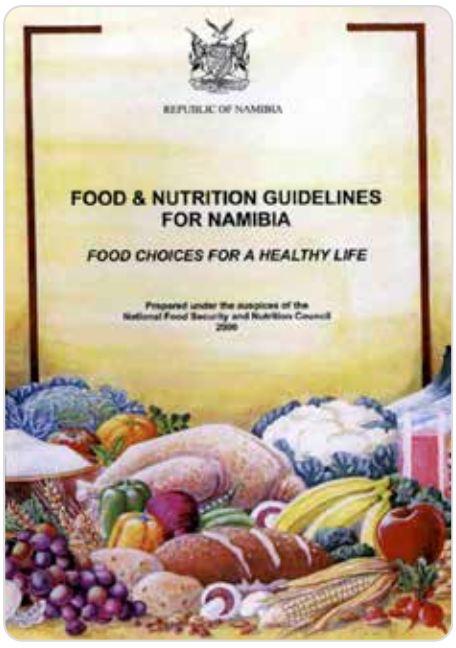
Sweet or salty snacks should only be consumed in small amounts and on rare occasions.

Oils, spreads and sauces should also be used sparingly – don't reuse oil more than 3 times.

Always read your food labels! Note that Namibia has so far very limited food label regulations, so we don't know all ingredients and additives that are in our foods and beverages.

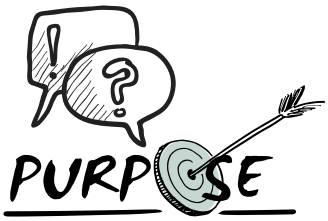
Drink lots of water and reduce the number of sugary drinks, including fruit juices.

Dilute fruit juices or other sugary drinks with water (50/50).




You can view and download the complete Food and Nutrition Guidelines for Namibia here: *www.cloud.nafsan.org/FoodGuide.pdf*

## NUTRITION CHALLENGES (EXERCISE 4)




This exercise is an opportunity for participants - at the end of the first day - to reflect on what they learned so far, and to share the real-life challenges they are facing when it comes to healthy eating and drinking. It is also an important opportunity for facilitators and the whole group to better understand existing challenges and to start brainstorming possible solutions and ways forward.

NOTE: *Any suggestions from this exercise that may have a significant impact on Namibia as a whole, should be emailed to info@nafsan.org (by facilitators), either typed up or by taking picture of the handwritten notes. In this way, helpful responses can influence future advocacy efforts toward overcoming malnutrition in Namibia in all its forms.*

### RESOURCES NEEDED:

- Pens and printed questions **Worksheet 2** (p. 84), at least one per small group
- Enough space for small groups to break away and discuss


Start by highlighting that the last session focused on ideal healthy meals, yet that there are a variety of aspects that make it difficult or even impossible for everyone to live, eat and drink according to these ideal standards.

Share that the following exercise helps us to better understand these difficulties and may offer ideas as to what we can do to overcome any existing challenges.

Divide the group into small groups of 3-4 and share the worksheet with each group. You can either give one paper per group or even one paper per person, so everyone can take notes.

Briefly read the 4 questions to be discussed in small groups aloud and allocate 15 minutes for discussing these questions. Emphasize that everyone within the small groups should be allowed to share their perspectives, and ideas and contribute to the discussions.

After 15 minutes (walking around during this to ensure that at least most groups had enough time to discuss all 4 questions), get **everyone together in one big circle** and ask them to share what they discussed, hereby starting with the second question.

Participants' answers to the first question will be integrated into today's closing.

Listen to various responses from individuals on the second question, then move to hearing responses to the third and finally to the 4th (and last) question. Make sure people share and speak for themselves, and do not necessarily have to represent their small group.

Take note of their responses and let these influence your preparations for tomorrow. For instance, what type of examples you use or what other specific needs this group may have.

## CLOSING ROUND – DAY ONE

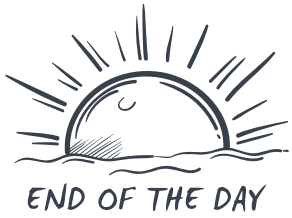
As participants sit in a circle, explain that you are going to do a closing round for today. Say, that you will start a sentence that everyone is going to complete, one after the other, going around the circle.

Any participant may hereby 'pass' in the first round (e.g. when they are not yet ready to speak or cannot think of an answer yet). However, it will then be their turn to complete the sentence in a second round.

It's recommended that you lead by example and are the first to complete the sentence with your own answer/ending, before passing it on to your neighbour.

The sentence to be completed is: ***"The most valuable thing I learned today was…"***

…which is also the first question from the previous 'Nutrition Challenge' exercise.



## SECOND DAY – PART 3: THE RIGHT START FOR OUR CHILDREN

MORE INFO P.63

→ Start the day/session with "Afterthoughts and Reflections", as described on page 2 .

## THE FIRST 1,000 DAYS (INFO 5)

Having started the day by checking-in for 10-15 minutes with **'Afterthoughts and Reflections'**, transition now into this session that will focus on the most important times in everyone's life: the first and most formative years.

These are the years during which the foundation for our physical health is being laid, whereby nutrition plays a key role, also in shaping and influencing not only our physical but also our mental, intellectual, cognitive, emotional, and social development for the rest of our lives.

### OVERVIEW OF SESSION 5: 30 MINUTES

1. **First 1,000 Days**
2. **The formative years**
3. **Namibia's Right Start Campaign**

### SLIDE 5.1. – FIRST 1,000 DAYS

Emphasize that these first 1,000 Days do not start at birth but already start at conception, meaning in the mother's womb during pregnancy. How well or how poorly mothers and children are nourished and cared for during this time has a profound impact on a child's ability to grow, learn and thrive.

Use the number '1,000' on the slide to illustrate the different stages and their importance.


Key Messages:

The image of a pregnant woman (**1)** highlights how human development starts in the womb, as embryos already start adapting right after conception to their environment. For instance through what the mother eats, drinks, and what and how she feels. Especially toxins (alcohol, cigarettes, etc.), malnutrition and high stress levels play a major role and increase risks of disorders and diseases.

The **first '0'** shows the importance of breastfeeding (6 months exclusively, and continuing until 2 years).

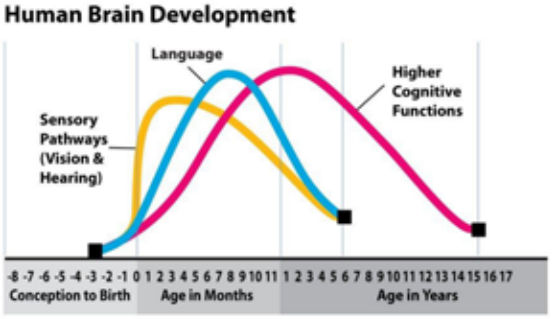
The **second '0'** emphasises the importance of complementary feeding = the first foods in addition to the mother's milk after 6 months, as the child transitions to eating solid food, first with support and later on their own.

The **third '0'** highlights how nutrition as a central component for development supports children to successfully stand and walk 'on their own' when they are provided with good nutrition, positive stimulation, protection, loving care, empathy, and opportunities for play during these first 2+ years of their life.

Children who experience a lot of stress in the womb react more negatively to stress, feel easier threatened or challenged, and tend to encounter longer-term problems with their emotional and cognitive functioning.

## SLIDE 5.2. – THE FORMATIVE YEARS

The first eight years of our lives are called the 'formative years', and especially the first 1,000 days (from conception until 2 years of age) are an especially important time. It is during these first 1,000 days when the child's brain begins to grow and develop and when the foundation for their lifelong health is built. Therefore, this is a crucial 'window period' in which lies tremendous potential but also enormous vulnerability.



Synapse formation begins declining before Age 3

*Safe, supportive, and stimulating environments, adequate nutrition, and social interaction with attentive caregivers are important for children during their first years.*

**UNICEF – 'The Formative Years' -** www.unicef.org/early-childhood-development

### Key Messages:

The first 8 years in the life of a child are called 'the formative years, as these are the key years for our physical, mental (cognitive), emotional, and social development.

The first 1,000 days = from conception until the age of 2 years, is when the foundation is built, with nutrition playing a central role in the human brain's development, as shown on the chart.

Explain aspects of vision, hearing, language and cognitive development as necessary.

## SLIDE 5.3. – NAMIBIA'S RIGHT START CAMPAIGN

Given the importance of these first 1,000 days for a child's development and for the foundation of their lifelong health, Namibia focuses more and more on **IECD = Integrated Early Childhood Development**. Various Government ministries, UN agencies, civil society and private sector organisations teamed up to create the ***Right Start Campaign***, which has its own website: *www.rightstart.com.na*, as well as additional information sharing and engagement on national television, in newspapers, on the radio and through various other activities.


### Key Messages:

*ASK: Who knows the Right Start Campaign?*

Integrated Early Childhood Development (IECD) has been recognized as extremely important for Namibia's national development, including aspects of nutrition.

This is why the ***Right Start Campaign*** was established by multiple stakeholders in 2020.

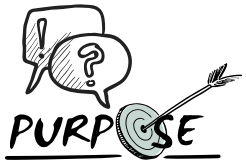
The ***Right Start Campaign*** website contains plenty of useful information and documents: **www.rightstart.com.na**

The Right Start Campaign continues to expand and offer more resources for parents, including an app in various Namibian languages to support parents: *www.thrivebyfive.com*.


**Transition to the next session/exercise:**

Receiving the right nutrition during this time (first 1,000 days and beyond) is absolutely key for children's development, which is why we will now explore this in more practical detail.

## MATERNAL NUTRITION (EXERCISE 5)




This exercise intends to show the knowledge about how to care for pregnant mothers and to highlight the need to put it into practice.

It further serves to verify any information and perceptions that exist within communities, i.e., to ensure that the correct information is provided as to what to do, what not to do, and how best to provide necessary support.

### RESOURCES NEEDED:

- Flipchart and markers to write on (optional!)
- MoHSS-Brochure: *'Nutrition during Pregnancy and Breastfeeding'*


Remind everyone that our first 1,000 days start in our mother's womb from the time of conception, and that this exercise focuses on this crucial period and how to create the best possible environment for a new life to come into this world as healthy and smart as possible.

### 30 MINUTES

Divide participants into 4 small groups of ± 5-6 people in each group, for them to share their existing knowledge around maternal nutrition and support, and give them the following **instructions**:

Each group should discuss the following questions in ± **10min**:

- ✓ *What should pregnant women consume that benefits their maternal health?*
- ✓ *What should pregnant women not consume during pregnancy and breastfeeding?*
- ✓ *How can others, such as men (fathers), do to support the mother-to-be?*

**Afterwards**, ask the groups to present their findings in full, yet one question at a time.

Have the first group share what they find **beneficial for pregnant women** in terms of nutrition, followed by the second group adding to this, then the third and then the fourth.

*Typical responses that are anticipated: enough and healthy food (which may include seemingly 'weird' food choices, yet the body often knows what it needs), lots of water, as well as supplements, such as iron and folic acids.*

The next question is about **things to avoid** during pregnancy and breastfeeding, hereby start again with one group and then let all other groups add their responses and additional input.

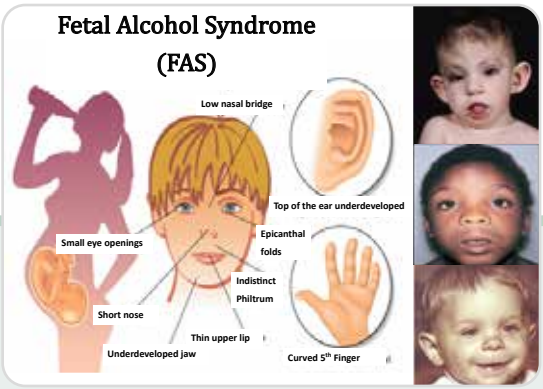
A typical list of tips here should include smoking, drinking, drugs, etc.

→ At this stage, show **Slide 5.4** to participants and afterwards you **hand out** the brochure on ***'Nutrition during Pregnancy and Breastfeeding'*** which provides a helpful and reliable overview in terms of information.

Make sure to also ask for responses to the **last question** on **what others** (e.g. men as fathers) **can do to support a mother before birth** (table on p. 62 for additional suggestions).

## SLIDE 5.4. – FETAL ALCOHOL SYNDROME (FAS) AND SMOKING

Show this slide when reflecting on answers to the 2nd question of 'Exercise 5': *"What pregnant women should not consume during pregnancy…"* as it shows how drinking even small amounts of alcohol can lead to Fetal Alcohol Syndrome (FAS), which includes brain damage and can cause growth problems.




### Key messages:

FAS causes permanent (non-reversible!) physical and cognitive problems for the developing baby

Babies with FAS may have smaller heads, delayed growth, abnormal facial features, and intellectual problems with learning and memory. It can be devastating, both for the affected child and for their family, and such babies often require specialized care.

There is no safe amount of alcohol that a pregnant woman can consume, as any amount of alcohol can harm the developing fetus. Pregnant women must avoid drinking alcohol entirely.

**Smoking during pregnancy** also harms the baby by decreasing the amount of oxygen and nutrients it gets, reducing growth and increasing the risks of various future health problems.

Pregnant women who smoke have an increased chance of giving birth prematurely, delivering babies with low birth weight, experiencing stillbirth, and having infants who develop sudden infant death syndrome (SIDS).

Babies born to mothers who smoked during pregnancy are at a greater risk of developing respiratory infections and asthma.

Pregnant women must avoid drinking and smoking entirely to protect their own and baby's health.

The last question, about how **men as partners** or others in a pregnant woman's social circles can **provide support**, is also an interesting and important one. It brings socio-cultural aspects to the surface as to how we can better care for and support pregnant women, including crucial gender-related aspects. This is highly relevant, as gender inequality and unhealthy gender dynamics have clear negative impacts on nutrition and food security (CARE, 2022). Therefore, it will be interesting to hear the various responses from the groups and have fruitful discussions.

**SMOKING AND DRINKING ALCOHOL CONTRIBUTES TO CANCER:**

Smoking (including Vaping!) harms nearly every organ in the body, including the lungs, heart, blood vessels, immune system, and reproductive system. It contains over 7,000 chemicals, including over 70 known to cause cancer. These chemicals damage the DNA of cells, which can lead to uncontrolled cell growth and cancer.

Excessive alcohol consumption is a known risk factor for several cancers, including mouth, throat, esophagus, liver, and breast cancer. Limiting your alcohol intake or avoiding it altogether can significantly reduce your cancer risk.

NUTRITION HOTLINE: **081 555 3888**

## BREASTFEEDING AND FIRST FOODS (EXERCISE 6)


This exercise taps into existing knowledge/practices around breastfeeding, while providing information on how young children (ideally at 6 months) should be gradually introduced to food. It further serves to verify or correct any information and perceptions that exist within communities and ensure that the correct information is being provided and that breastfeeding- and complementary feeding practices are going to improve.

### RESOURCES NEEDED:

- Flipchart and markers to write on (optional)
- MoHSS-Brochure: *'How to Breastfeed your Baby'*
- MoHSS-Brochure: *'How to Feed a Baby after 6 months'*

Highlight the importance of breastfeeding during the first 1,000 days and that we will explore together how we can make sure that babies and young children indeed get the best possible start in life.


### 45 MINUTES

Ask participants to get together in pairs (the fastest way is to have everyone just turn to their neighbor, but you can also quickly let them pair up randomly), and give them the following **instructions**:

Participants to ask each other the following 3 questions for **±10min**:

- ✓ *What do you know about breastfeeding, its benefits and recommended length?*
- ✓ *What additional benefits does breastfeeding have for mothers?*
- ✓ *What are the first solid foods we should start giving our children?*

**Afterwards**, get everyone together again to share their answers. Again, focus on one question at a time, starting with the first one. Once the responses to one question are exhausted, move to answers on the next question, where you may consider adding the following…

### FIRST QUESTION ON BREASTFEEDING:

- ✓ Great convenience: works everywhere and anytime, and it saves money,
- ✓ Reduces worries and needs about hospital visits, as breast milk contains antibodies.

→ *Use the upcoming two slides to provide helpful and correct information:*

### BE AWARE OF 'BREASTFEEDING MYTHS'

1. **When I go back to work, I will have to wean my baby… = WRONG!**

You can express milk before work and continue expressing it during the day to feed the baby when you get home. Some mothers may even be able to briefly go home or have a family member bring the baby. Note: even when giving formula, it is best to continue breastfeeding whenever you are with your baby.

2. **Small breasts can't produce enough milk… = WRONG!**

The milk-producing glands are roughly the same size for all women. Some breasts are larger than others mostly because of the number of fat cells in them. No matter the size of your breasts: the more your baby nurses, the more milk you will produce, as long as you drink enough water or other healthy fluids.

## SLIDE 5.5. – BENEFITS OF BREASTFEEDING

Breast milk has many benefits for both the baby and mother. While breastfeeding is a personal choice, encourage mothers to exclusively breastfeed for 6 months and continue for longer, to start with the benefits for the baby.

Additionally, show a few comfortable positions for mothers when breastfeeding their babies, and highlight the need for good 'attachment' (that the breast is fully in the baby's mouth), and advise mothers to drink a lot of water or tea.


> Key Messages:

Benefits for babies: help protect against infections and diseases, and reduce the risk of sudden infant death

Drink water/tea + different types of breastfeeding positions: cradle hold, cross-cradle hold, side-lying

## SLIDE 5.6. – 'BREAST IS BEST' VS. FORMULA MILK

Ask for a show of hands: *Who thinks formula is as good as breast milk?*

Highlight that many key nutrients that are found in breast milk are NOT in formula milk. Emphasize that breast milk is by far the best option! This is why Namibia is taking active measures to limit the marketing and advertising of breast milk substitutes (formula) as similar or better than the real and original breast milk, as a way to protect children and promote breastfeeding among mothers.

However, formula milk can be an alternative for mothers who are unable to breastfeed.


> Key Messages:

Key components only found in breast milk: antibodies, hormones, white blood cells, enzymes and more.

Breastfeeding should be promoted, and consumers must be protected from false or misleading marketing or advertising of formula milk as pretending to be as good as, or even better than the original breast milk.

In some limited cases, the use of formula can be useful indeed. Yet, in many cases there are ways in which mothers can continue using their own milk, e.g. pumping milk when having to go to work.

**3. Breastfeeding makes my breasts ugly ('saggy boobs')... = WRONG!**

The reason your breasts will naturally grow and swell with milk is because of pregnancy, whether you breastfeed or not. Pregnancy causes your breasts to stretch and change in size, and they will shrink again when you wean your baby.

Breasts also sag for **other reasons**: age, genetics, smoking, number of pregnancies, and high BMI.

**Prevention**: Since so many factors contribute to sagging, you cannot completely prevent it. However, there are some things you can do, such as **drinking plenty of water, maintaining a healthy weight, practicing a good posture, regularly exercising, massaging and not smoking nor vaping**.

***...and if you have saggy breasts, wear them with pride!***

## SECOND QUESTION ON BREASTFEEDING BENEFITS FOR MOTHERS:

- ✓ Continued breastfeeding reduces risks of **breast and ovarian cancer, high blood pressure, type-2 Diabetes and depression, and helps mothers lose weight and the uterus to heal.**
- ✓ Breastfeeding may - to a certain degree - delay the mother's next pregnancy during the first 6 months, but only if breastfeeding is done exclusively and on demand.

## THIRD QUESTION ON GIVING FIRST SOLID FOODS TO CHILDREN - 'COMPLEMENTARY FEEDING':

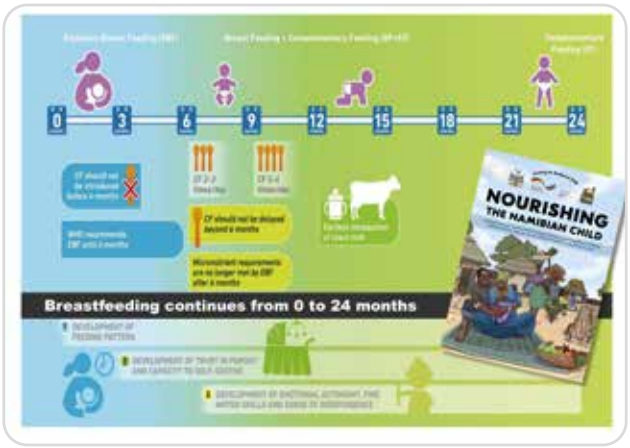
- ✓ Start with iron-rich foods, such as iron-fortified infant cereal, such as soft porridge from millet *(mahangu)*, oats, wheat, rice, maize or beans *(oshingali),*
- ✓ Mashed vegetables and fruits, e.g. sweet potatoes, pumpkin, bananas, avocados etc.,
- ✓ Mashed (and well-cooked!) meat, such as chicken, fish, beef, pork
- ✓ Slowly introduce them to 'family foods' (which the rest of the family eats) as they grow older.

→ *See 'Background Information' (pp. 67-69)*

NOTE: It is important to introduce new foods one at a time, waiting a few days between each new food to monitor for any signs of an allergic reaction or intolerance.

## SLIDE 5.7. – FIRST FOODS (COMPLEMENTARY FEEDING): TIPS AND BEST PRACTICES

Explain 'complementary feeding' as the process of "gradually feeding infants solid food in addition to breast milk."




Use the slide to show the period when complementary feeding starts, which is at 6 months. Mention that infants beyond 6 months grow much more rapidly. Therefore need solid foods with adequate essential nutrients in addition to breast milk, because breast milk alone can no longer meet all their nutritional requirements.

Remind participants of the type of foods that need to be introduced during complementary feeding and continue to highlight a few tips on complementary feeding, such as *'wait until the child is ready. Start with small amounts and increase as the child gets older. Hygienically prepare the food, offer a variety of food, introduce one food at a time, and be patient.'*

### Key Messages:

Complementary feeding (= slowly introducing a variety of food) should start at 6 (six) months while mothers continue breastfeeding until the child is 2 (two) years old. Some parents start complementary feeding at four months already, yet it should not be delayed beyond 6 (six) months.

Benefits of complementary feeding: build strong immune system, support growth and proper development

Type of food to be eaten during the complementary phase (start with iron-fortified infant cereal – thin mahangu and oats and gradually introduce family food – mashed bananas, carrots, pumpkin, fish, chicken

Nourishing the Namibian Child – offers practical advice and recipes, and one can download it here: https://cloud.nafsan.org/ChildNutrition.pdf

No sugar and no salt – to reduce the risk of developing health problems such as diabetes and hypertension later on in life. It also helps to limit the child from developing a sweet tooth and salty cravings.

→ **Hand out** both MoHSS's brochures on ***'How to Breastfeed your Baby'*** and ***'How to Feed a Baby after 6 Months'*** to provide everyone with helpful and reliable information.

If available, also give out the booklet ***"Nourishing the Namibian Child"*** (https://cloud.nafsan.org/ChildNutrition.pdf).

***CLOSING EXERCISE AND DISCUSSION:*** Ask everyone to turn to their neighbour and discuss with them for 2-3 minutes: ***"How can fathers (men) support breastfeeding mothers?"***

Afterward, ask participants to share and facilitate a brainstorming/discussion on the positive role men can play as fathers in support of the mothers of their children, thereby playing a crucial role in their children's lives and overall development. (See also table on p. 62)

## CHILD NUTRITION AND MORE (INFO 6)

After having learned about the importance of breastfeeding and how to gradually introduce infants and toddlers to their first foods (complementary feeding), let's not forget that good nutrition (what we give our children to drink and eat) is key for their development and future habits.

### OVERVIEW OF SESSION 6: 45 MINUTES

1. **Importance of Healthy Eating for Kids**
2. **Early Eating Practices and Habits**
3. **Check-Ups and Micro-nutrient Supplementation**
4. **Hygiene Routines (= nutrition-sensitive)**
5. **Lunch Boxes and School Meals**

### SLIDE 6.1. – IMPORTANCE OF HEALTHY EATING FOR KIDS

Begin with the statement *"Healthy food is more than just something to eat!"*, and highlight the importance of children eating healthy food, as it will shape them and their behaviors for the rest of their lives, incl. eating patterns and consumer habits. What children eat/drink will have consequences for them and their physical, mental, emotional, and social development, as it may prevent obesity and sugar addictions, and will lower their risk of chronic diseases, cancer, and early death later in lives.

Especially during the formative years (0-8 years) neural connections in the brain and various habits are formed, either in positive/healthy or in negative/unhealthy ways – it is up to us to decide, first for them and later together with them.

Key Messages:

Children need to eat and drink healthy for proper growth, better immune systems, and smarter brains

Healthy eating and drinking habits are formed at an early age. Avoid giving them too much sugar early on, and role-model healthy eating and drinking habits, as well as other positive behaviours.

Besides good nutrition, let children play and explore in safe environments. Caregivers who interact with their children, stimulate growth and brain development. Loving and healthy Early Childhood Development is key to their future success in life.

**Caution:** Limit young children's exposure to electronics, such as phones, laptops and television. Too early exposure negatively affects long-term health, social skills, behaviour and school performance.

***For more information: www.nafsan.org/ecd & www.nafsan.org/disabilities***

## SLIDE 6.2. – EARLY EATING PRACTICES AND HABITS

**Choices --> Practices --> Habits --> Lifestyle**

Highlight how our choices and the practices we establish with our children become habits and will form part of their future lifestyle and overall health.

Give examples of early poor eating practices and their consequences, such as too many sugary drinks which can cause tooth decay and obesity.

Also highlight good practices, such as drinking water and eating whole fruits. If you give juice, always dilute it with water (at least 50/50), which makes the child less used/addicted to sugar. An alternative to juice can be fresh *oshikundu* with no or only very minimal sugar.

Establishing healthy eating habits at a young age is the best pathway to a healthy future!

**Key Messages:**

State how your choices for your children determine their future health and lifestyle.

Provide and ask for examples of unhealthy eating/drinking practices and their consequences.

Encourage practicing healthy eating habits from an earlier age. Give and ask for positive examples.

Limit the use of electronics for small children and be aware of what they are watching.

**TIP**

Agree with caregivers in your family to not use food as a reward or 'bribe', for making the child do something, as this may spoil a child and contribute to childhood obesity.

## SLIDE 6.3. – CHECK-UPS AND MICRONUTRIENT SUPPLEMENTATION

In addition to healthy eating and drinking practices, regular health check-ups are key for our children to be healthy. Measuring weight, height, and overall growth should form part of regular clinic visits and health check-ups for children, alongside scheduled immunisations and vitamin supplementations, which may also include regular deworming.

Key micronutrients for young children are Vitamin A, Zinc, Folic Acid, Iron, and Iodine.

Micronutrient supplementation is crucial for child survival. It significantly reduces risks of child mortality by 23-34% and deaths due to measles by ± 50% and diarrhea by about ± 40%, aligned with national guidelines on micronutrient supplementation to children."

**Micronutrient Supplementation:** Vitamin A + Iron

**Key Messages:**

Encourage mothers (and fathers!) to take their children to health facilities for regular check-ups for immunization and micronutrient supplementation

Micronutrient supplementation that children under five in Namibia need is Vitamin A and Iron, according to national guidelines. Other supplements can include zinc, iodine, and folic acid. Regular deworming should also be considered, as parasites are common and hinder nutrient intake.

Health professionals should also measure weight, height and overall growth and make notes in the child's health passport and growth charts. Parents might have to remind nurses of this.

## SLIDE 6.4. – HYGIENE ROUTINES (= NUTRITION-SENSITIVE)

Engage the group on any other activities that are indirectly nutrition-related and important for children to learn from an early age, so these become part of their practices, daily routines, and eventually positive habits in life.

These should include hygiene routines. As parents, try to make them enjoyable and fun while ensuring they happen every day (unless there are really exceptional circumstances).

> Key Messages:
>
> Ask participants what hygiene routines they have in place at home, such as cleaning, washing hands, brushing teeth, bathing etc.
>
> Highlight how hygienic, safe and clean conditions are important for us to be and stay healthy.

## SLIDE 6.5. – LUNCH BOXES AND SCHOOL MEALS

As you briefly show the next slide, ask participants:


ASK: ***What does your child eat at school?***

Listen to the responses with curiosity, as some might provide lunch boxes for their children, while others rely on school feeding programs or whatever food may be available at the school's cafeteria, tuck shop or from street vendors.

After listening to a few answers, discuss various options for healthy lunch/snacks while children are at school, depending on parents and children's situation and overall circumstances.

### A) LUNCH BOXES

When parents are packing lunch boxes for their children, talk about typical food and drinks that parents give their children that are not-so-healthy choices, without condemning these choices but highlighting the need for balance and moderation when it comes to sweet or salty snacks.

Then talk about nutritious and healthy food/drink choices (depending on the family budget), where the lunch box content should ideally consist of any fresh fruit (e.g. apple/banana), vegetables (e.g. carrot/cucumber sticks), whole grain (brown bread) + protein (peanut butter, nuts, or hardboiled eggs), and possibly dairy (small yogurt).

→ *see: "Healthy Plate (p.25)"*

ASK: ***Are you packing lunch boxes for your children, are they packing themselves, or are you packing them together?***

Let participants (parents/caregivers) see this as an opportunity to talk with their children about food and drinks that are good for them - while allowing them to have occasional treats (sweet/salty snacks/cool drink), yet in moderation.

## B) SCHOOL FEEDING, TUCK SHOPS AND SCHOOL GARDENS

In some areas and circumstances, available options for and possible influence of parents and caregivers are limited.

Many children have to rely on school feeding schemes and/or on what local tuck shops are offering. Although **school feeding programmes** are offering increasingly nutritious food, they still at times rely on parental engagement additional donations or other forms of support.

**Tuck shops** are well-known for offering rather unhealthy food, such as sweets, chips, cool drinks, and sweet juices. Yet, if parents approach the school and/or the tuck shop owners and request for them to sell healthier items (such as fruits, vegetables, and eggs) and/or to limit the sale of unhealthy items to certain days or times of the day, this would be a success.

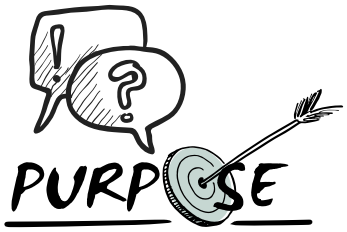
More and more households, communities and schools all over Namibia have started gardening initiatives over the last few years. Especially **school gardens** do not only provide additional healthy food for children, but it allows children to gain hands-on knowledge and experiences when it comes to growing their own food and agriculture in general.

However, the success or failure of any school garden highly depends on the enthusiasm and commitment of individuals, such as teachers, students as well as parents, and other nearby community members. It is therefore important to engage and work together with one another and ensure that such an initiative becomes and remains a lasting success.

→ NAFSAN and other stakeholders can provide inspiration, knowledge and other possible resources in this regard: *www.nafsan.org/gardening* **(see Background Information on The Food We Grow, p.71).**

Facilitate brief conversations around healthy food/drink options for children while they are at school, depending on the context and circumstances of the group's participants.

## THE FOOD WE GROW (EXERCISE 7)




This session – *usually after a quick nutritious break* – aims to highlight the link between nutrition and agriculture, hereby inviting the group to take a closer look into food cycles and systems.

This exercise reconnects participants with the 4 different food groups and is meant to be a conversation starter around which foods can be grown at home and which ones have to be bought in shops. It is also meant to increase enthusiasm and awareness of the importance of gardening on community and household level, and it encourages sustainable harvesting of wild indigenous fruits.

### RESOURCES NEEDED:

- Pre-selected food item cards (including descriptions)
- 3 Baskets with A4-signs (plus pegs to hold these signs):
    - Grow or Farm
    - Buy from Shops
    - Gather / Collect


Invite participants to remember the 4 food groups (from yesterday) and remind them of the conversation during the previous session on school gardens which help to provide a variety of healthy food for our children.

### 30 MINUTES

Ask for a show of hands who already has experiences in and around agriculture, either professionally or personally at home. This will give you as facilitators anindication as to the depth of insight around gardening among participants.

1) Hand out 3 food item cards to each participant, which they are already familiar with from the food group exercise the previous day.

2) Place 3 different baskets on the ground, hereby stating that one basket is for the foods we can 'grow' or 'farm', while the second basket is for the foods we have to 'buy' and the third basket we can 'collect' and 'gather' from the natural environment around us. Make sure the respective wording is attached with a peg to each basket.

3) Now ask participants to put their different food item cards into either the baskets, according to their understanding of which food category each food item belongs to. This should take all participants about 2-3 minutes.

4) Once everyone has placed all their cards into the baskets and sat down again, go through all three baskets, starting with the items that people think must be bought from the shops and rearrange items based on what the group easily agrees to. If there is no clear agreement, lay these items under discussion on the ground for now.

5) Then do the same with the other two baskets and either verify the items in there or move them into another basket if the group easily agrees. Again, put all those cards on the ground that people are arguing about.

6) Now use the cards on the ground to facilitate a discussion as to which foods can be grown or farmed (either at home or in shared community spaces, and even at schools) and which foods can be collected and gathered from nature? Of course, acknowledge that we often buy things from the shops, yet highlight that a lot of foods can potentially be produced or collected by ourselves, which is also the key motivational message from this exercise.

This exercise should ideally end with conversations around why and how we can grow, farm or gather our own naturally nourishing foods, instead of relying on shops that tend to sell rather unhealthy food, often ultra-processed and/or too sweet or too fatty.

Deepening questions for these discussions can include:

- ✓ What are the joys/benefits of farming and/or gardening, especially for children?
- ✓ How can we make (local/indigenous) seeds to be more accessible?

During these facilitated discussions emphasize the link between agriculture and nutrition.

→ ***When discussing this, make sure children's education will not be compromised!***



Use available materials, like the ***'Step-by-Step Guide'*** **brochures** that introduce an organic permaculture approach to gardening that can be applied at home, as well as in schools, kindergartens (= ECD centers) and in community gardens.



Make sure you introduce the idea of **composting**, to reduce and make good use of kitchen and garden waste, while at the same time producing fertile soil for growing plants.

If time and technical circumstances allow, you can also show these 2 short **videos** (± 5min each) that provide some practical tips on how to start and maintain one's own garden.

→ These clips are freely accessible on: *www.nafsan.org/gardening*

In **concluding this session**, summarize the outcomes of the discussions, hereby highlighting how home gardening brings a greater variety of food (especially vegetables and fruits) on the table, while it can also change our own and children's relationship to food. Particularly young children enjoy the process of seeing seeds grow and develop and it is a good way of teaching them to care of something so that they can reap the fruits of their work and patience later.

It further helps them to better understand and appreciate where food comes from, and that natural food is healthier (and it often also tastes better) than overly processed or even ultra-processed food.

Farming and gardening both strengthens our children's and our own connection to food systems, life cycles and to nature in general.

Lastly, highlight that awareness and appreciation of our indigenous foods is key, because of their great nutritional and cultural-traditional value. It is good to know for instance, which fruits can be harvested when and how, and how best we can add them to our diets ***(see Cook Book on p. 48)***.

## FOOD SAFETY AND PREPARATIONS (INFO 7)

MORE INFO P.73

Whether it is home-grown food or food that was bought from the market/shop, the naturally next step is to prepare it in ways that are safe, nutritious, and delicious.

Therefore, this session now is about *Food Safety and Preparation*, and before you start it is good to quickly find out what the group already understands and knows about these terms.


***What comes to your mind when you hear the term "Food Safety"?***
***Why do you think proper "Food Preparation" is important?***

Listen to a few responses to both questions and take some mental or written notes for yourself, so that you can easily refer to some of what people have said during this session.

### OVERVIEW OF SESSION 7: 45 MINUTES

1. **What are Food-borne Illnesses?**
2. **Transmission and Infection: How do we get them?**
3. **Symptoms: How to Notice Food-borne Illnesses?**
4. **Responses: What to do when you get them?**
5. **Prevention: How to protect ourselves and others?**
6. **Food Preparation: Safe and Healthy**

### SLIDE 7.1 – WHAT ARE FOOD-BORNE ILLNESSES?

Start by explaining that worldwide over 200 different food-borne illnesses have been identified, most of them caused by the intake of foods or beverages that are contaminated with bacteria, viruses, or parasites. Yet, these illnesses can also come from harmful toxins or chemicals. Such contamination then often occurs through pollution in water, soil, or air, and it can also come from unsafe food storage and processing.

The type and severity of illnesses can range from simple or intense diarrhea (often incl vomiting) to cancers and are most present as gastrointestinal problems (= stomach-area).

Food born illnesses are repeatedly happening in Namibia, such as: Hepatitis A, Listeriosis (which was once in polony), and Salmonella, while there was also a major outbreak at Oshakati Secondary School in 2019, which was caused by Giardia lamblia trophozoites and B. coli, which got children infected through the soup they consumed.

Key Messages:

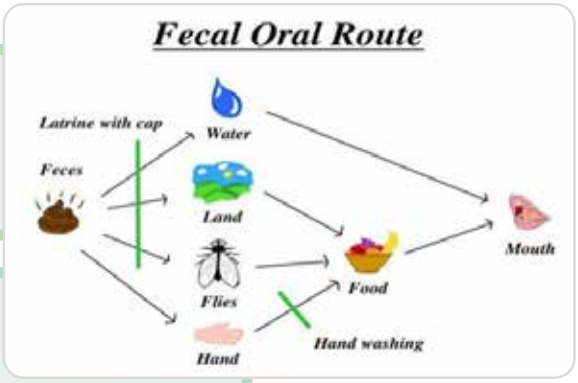
- Food-borne illnesses happen through food or drinks contaminated with bacteria, viruses, or parasites
- Toxins or chemicals through contaminated water, soil, air, or through unsafe food storage/processing
- Symptoms can be mild or severe, including diarrhea, vomiting, fever, and even lead to cancer
- Commonly known examples of food-borne illness: Hepatitis A, Listeriosis and Salmonellosis
- We are also going to learn how to prevent food-borne illnesses, e.g. by keeping food cool enough, cooking it properly, washing our hands and the food we eat.

## SLIDES 7.2 A) + B) – TRANSMISSION AND INFECTION: HOW DO WE GET THEM?

Start by engaging with the group on what they already know about how we can we get food-borne illnesses, in other words: "What are known sources or causes of transmission and infection?"


Highlight that the most common outbreak of infectious diseases occurs due to the use of poor-quality water. For instance, irrigating your vegetables with water that is contaminated with animal manure or human sewage can spread *E. coli*, which can lead to food-borne illness when consumed. Also, if you use the same cutting board for both chopping vegetables and preparing raw meat, you risk contaminating the vegetables.

Other causes includes: improper cooling, inadequate reheating, contaminated raw food or ingredients, use of leftovers, cross-contamination, and inadequate cooking.




### Key Messages (7.2. A):

Sources of food-borne illness are most often contaminated water, food that has gone bad, infections from unclean hands or equipment, or when using the same cutting board for meat and for vegetables.

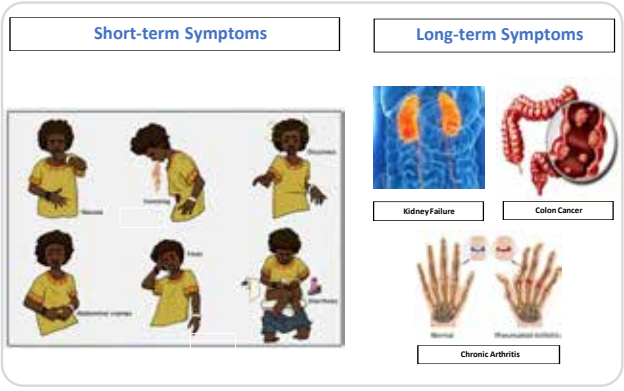
### Key Messages (7.2. B):

Infectious diseases often occur using the fecal oral route:
faeces --> flies --> food --> mouth

It can also happen when watering plants (where the edible part is not under the surface) with water that was contaminated by human sewage/faeces or with animal manure.

## SLIDE 7.3 – SYMPTOMS: HOW TO NOTICE FOOD-BORNE ILLNESSES?

The first symptom of food-borne illness is usually diarrhea and nausea. Before showing the slide, ask: *"Who in the group has ever experienced symptoms of a food-borne illness?"* Build on the input provided as you go through the different symptoms shown on the slide. Highlight the truth in the old saying***: "When in doubt, throw it out",*** as the body wisely tries to respond.




Explain that symptoms can range from mild to severe and can last from a few hours to several days. Such symptoms can but do not necessarily have to be caused by food-borne illnesses.

### Key Messages:

Short-term symptoms: nausea, diarrhea, vomiting, cramps, headache, fever, muscle weakness etc.

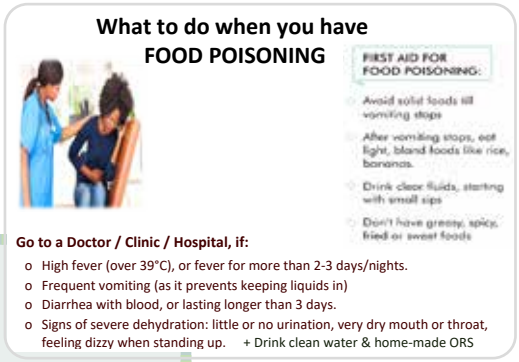
One of the main dangers hereby are dehydration, internal bleeding, and extremely high fever.

Possible long-term symptoms: cancer, kidney failure, chronic arthritis or even death.

NOTE: ***Young children*** *(under 5 years), pregnant women, older adults, and people with weakened immune systems*
*are* ***most affected*** *by food-borne illnesses!*

## SLIDE 7.4 – RESPONSES: WHAT TO DO WHEN YOU GET THEM?

The severity of food poisoning can range from extremely mild to very serious. Most food-borne illnesses usually go away on their own within 2 to 3 days. Use the slide to highlight what people can do when they experience food poisoning.




### Key Messages:

First aid: drink lots of water, get proper rest, eat light food like bananas, apples, crackers, bread, rice

What to avoid: alcohol, fried, fatty or spicy foods, meat, eggs, milk-products, coffee and smoking

Severe symptoms = see a doctor: bloody diarrhea or diarrhea for more than 3 days, frequent vomiting, signs of dehydration (no/little urine, dry mouth/throat, dizziness), fever is high (39°C+) or lasts 3+ nights

Canned food should be taken out of the can immediately after opening.

## SLIDE 7.5 – PREVENTION: HOW TO PROTECT OURSELVES AND OTHERS?

Food-borne illnesses are preventable. Relate to Covid times, how we all have learned lessons on living healthy, including hand-washing, as clean hands, trimmed fingernails and clean clothes reduce the risk of food contamination.

In addition, emphasize the roles each individual plays in promoting food safety by knowing and practicing the 5 basic keys to safer food.

Lastly, provide a few tips on how to make water safe for consumption


### Key Messages:

**5 Keys to SAFER FOOD:**
1 - Keep clean
2 - Separate raw and cooked food
3 - Cook food thoroughly *(while not overcooking)*
4 - Keep at safe temperature
5 - Use safe water and raw materials

→ *See 'Background Information' (p. 73)* for more details

**Ways to make water safer:** boiling, filtering, and using charcoal
*(see p. 74 for more details!)*

## SLIDE 7.6 – FOOD PREPARATION METHODS: SAFE AND HEALTHY

In addition to above guidelines for food safety, it's important to also keep in mind that food should not only be safe but also healthy.

Share some tips for preparing cooked food in ways that keep most nutrients alive and are also healthy for us.

Using methods that preserve vitamins and minerals helps nutrients be better absorbed, making our immune system stronger and gives us more energy. It also improves our digestion (= better gut health, also known as our 'second brain'), and can reduce inflammation and lowers your risk of chronic diseases.

So, let's explore easy ways of cooking our food that makes us healthy and feel great!

**Healthy Food Preparation Methods**


Steaming


Baking/Roasting


Boiling


Poaching


Sautéing


Grilling

### Key Messages:

Healthy food preparation methods:
steaming, boiling, baking, grilling etc.

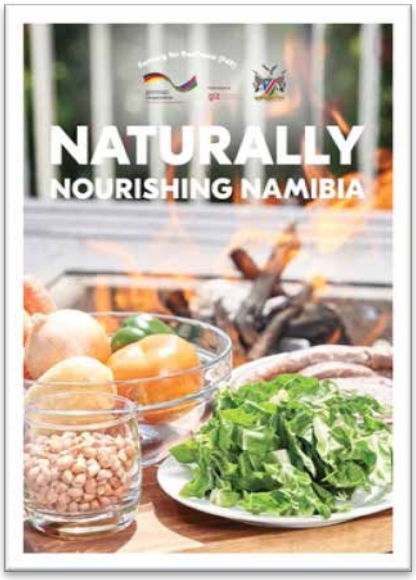
*TIPS -* Cook vegetables in as little water and not too long to preserve Vitamins C + Bs (water-soluble)

When cooking, use:

**Sugar** = not at all or as little as possible,

**Oil** = sparingly (not too much!) + use healthy oils: marula, olive, coconut

**Salt** = just a moderate amount (a pinch) of iodized salt. Use a variety of herbs and spices (such as parsley, turmeric, curcuma, curry etc.) for adding flavour. Rather use iodized salt.




You can find more tips on how to prepare food and use locally available ingredients for cooking delicious dishes in this **Cookbook** - *www.cloud.nafsan.org/F4R-Cookbook.pdf*

***'Naturally Nourishing Namibia'*** is an easy guide to preparing diversified meals and having a balanced meal. It encourages the use of indigenous foods, and represents the diversity of Namibia's cuisines, cultures and lifestyles.


NUTRITION HOTLINE: **081 555 3888**

## HOW WE CONSERVE FOOD (EXERCISE 8)


This exercise helps us to explore ways in which to food can be preserved and conserved, by tapping into participants' own and traditional knowledge as well as any existing practices of food preservation.


Start by mentioning that not all food that has been harvested or prepared for consumption can be fully consumed right away. Therefore, the phenomenon of 'left-overs' is as old as humanity.

This is why human beings from different cultures all over the world invented ways and methods how food can be conserved or preserved, meaning it is being kept safe in such a way that it can be consumed weeks, months or even years later.


### 30 MINUTES

Ask people to get together in groups of 3, and ask each other the following, for ±**10min**:

What traditional ways do you know from your culture/tradition or from your elders/parents how certain types of food can be made to last longer?

Share what types of food it is and what exactly is being done to it.

1. Have you heard of any other Namibian cultures/traditions and their ways of preserving certain foods? If so, which foods and how?
2. Are you aware of any other more modern ways of conserving/preserving food?
3. Use **Worksheet 5** (p. 87), as appropriate.

After around 10 minutes, when sharing and discussions in most groups of 3 have come to an end, get everyone together in the circle again.

Ask them to start sharing on the first and second questions, so you get a good overview of already existing traditional ways of food preservation, which in many cases is still being practiced, such as the drying of spinach or meat. List all the identified methods and the food it is being applied to on a flipchart for everyone to see and get a good overview.

If you still have time before lunch, move on to listen to answers to the last question.

Otherwise, start the last info session on *'Food Preservation, Storage and Waste Reduction'*, with reflections on this third question.

***- Lunch break! -***

## FOOD PRESERVATION, STORAGE AND WASTE REDUCTION (INFO 8)

MORE INFO P.74

This information session builds on the previous exercise on 'food preservation/conservation', which should have surfaced a number of traditionally known ways of preserving food.

Therefore, the first part of this session is basically an add-on to what has been captured around traditional and modern ways. If answers to the third question on modern ways of food preservation wasn't shared yet, start by providing space for this, before you proceed.

### OVERVIEW OF SESSION 8: 45 MINUTES

1. **Traditional ways to conserve food**
2. **Modern preservation methods and techniques**
3. **Food storage tips**
4. **Food waste**

Keeping in mind that this session was partially covered in the exercise session. Briefly highlight what is meant by food preservation, food storage, and reducing food waste, and link these topics together, e.g. food preservation and proper food storage can lead to less food waste.

### SLIDE 8.1 – TRADITIONAL WAYS TO CONSERVE FOOD

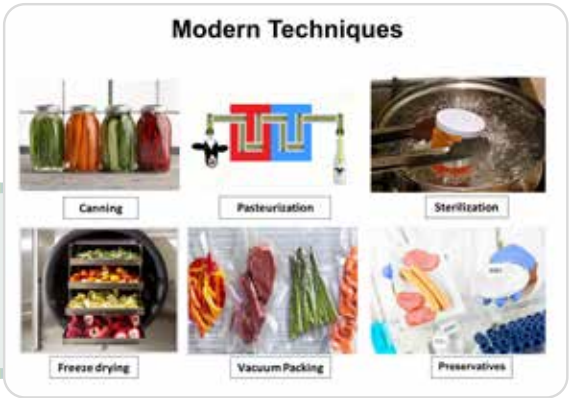
Show this slide to illustrate various traditional methods, many of which may have already been mentioned by the group.


> Key Messages:
>
> Traditional methods: drying, salting, smoking, fermenting, sugaring, jellying, pickling

→ *See 'Background Information' (p. 74)* for more details

### SLIDE 8.2 – MODERN PRESERVATION METHODS AND TECHNIQUES

Modern methods include canning, pasteurisation, freezing, irradiation, and the addition of chemicals. Advances in packaging materials have also played an important role in modern food preservation.




> Key Messages:
>
> Modern methods of food preservation: canning, bottling, vacuuming, freezing, sterilisation, pasteurisation, preservatives, and irradiation

→ *See 'Background Information' (p. 74)* for more details

NOTE: Different food preservation methods have different impacts on the quality of the food. This is why choosing the right method when preserving food is important.

TIP

Be aware that once you open any sealed or closed bottle, can or other container, the effect of preservation won't last much longer, and whatever is in there needs to be consumed within a short period of days and should be kept cool/refrigerated!

## SLIDE 8.3 – FOOD STORAGE TIPS


Ask participants to share some of their practical food storage tips, showing that our ancestors already knew a thing or 2 about how to store valuable and important food safely and wisely, like grains, as can be seen in the picture.

Initiate discussions around: *"What are the current ways in which we can store food, depending on our circumstances?"*

The following contains some possible examples that can be added to the discussions once participants have shared their insights:

- ✓ Store where rodents (rats/mice) cannot get to it,
- ✓ Ensure the place is dry (protected from water) with no/little direct sun light,
- ✓ Store food clearly separately and away from any poison, such as cleaning products,
- ✓ Follow food safety tips,
- ✓ Check canned food for damages,
- ✓ Package or wrap food properly,
- ✓ Consider investing in air-tight containers,
- ✓ Check expiry dates and storage tips on the food labels, if any,
- ✓ Watch out for spoilt foods and remove it immediately, as it may spoil other food,
- ✓ Have a designated space in fridge/storage for foods that will go bad within a few days.

**Key Messages:**

Different old and new methods of food storage: grain storage hut, pantry, fridge, freezer

Food storage tips: store your dry food (pasta, sugar, rice) in a cool dry place

Easily perishable food (meat, fish, milk products, fresh fruits/vegetables) to be stored cool + covered

→ ***See 'Background Information' (p. 75)*** for more details

## SLIDE 8.4 – FOOD WASTE

Start by reflecting on the lunch that the group had earlier that day. Ask if there were any leftovers, and what we usually do with leftover food?

**Facilitate** the **conversation** in such a way that it touches on people's personal experiences around food waste on household level, but that it also includes challenges around food waste on community and national level. Highlight how food waste is a huge challenge, starting right after production with post-harvest losses, but is also something that supermarkets, shops, restaurants, and hotels are facing on a daily basis.


Therefore, knowledge of how to better utilize and preserve food is essential and a conversation we need to have as a nation across the country and on all levels.

You can download this **Composting Poster** for printing: *www.nafsan.org/compost*

A suggested end of this session is to lead the discussions towards some doable action items:

> Talk about what **each one of us** can do as individuals on household and community level, such as **composting**, as this can transform at least some of our food waste into fertile soil and help our otherwise sandy Namibian become much more fertile over time. Use the picture to explain which food waste can be composted and which cannot.

> Key Messages:
>
> Some of our food waste can become fertile soil through composting.
>
> This can be a simple pit compost (= hole in the ground) that is being fed regularly with organic materials (as shown on the poster) and occasionally watered.


*https://dooiy.org*

- an innovative digital platform offering accessible do-it-yourself solutions using basic materials and simple tools for home gardening and much more!

## CHALLENGES, OPPORTUNITIES AND WAYS FORWARD (EXERCISE 9)

This very last session allows participants to focus and reflect on their own situations in the context of what they have learned and realized during the course of this workshop.

Divide participants into groups of 3, for final reflections on these 4 questions:

1. What was the most interesting and **important thing I have learned** in this workshop?
2. What **challenges** with regard to nutrition do I personally still face as of now, and what challenges are people in my community (or people otherwise close to me) still facing?

   Think also of the challenges identified yesterday, at the end of the first day.
3. Do I see **any opportunities** now through this workshop and what has been shared?
4. What are very concrete and **practical ways forward** for me now? What should be done, what can I do and what will I do personally and/or in your family/community?

This last question is a personal commitment by individuals to take action on any level: personal, within their own family, at work, in the community, or in the nation at large.

→ HAND OUT **Worksheet 6** (p. 88) and give the small groups about 15-20 minutes to discuss.

### JOINT REFLECTIONS:


When sharing the outcomes of this exercise, start with focus on hearing answers to questions No. 2 (Challenges) and No. 3 (Opportunities).

Let the group know that answers to the first question will be shared in the **closing round** at the end of the workshop.

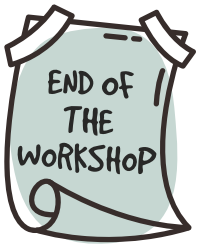
As for question No. 4 *"Ways Forward and Commitments",* highlight that answers to this question can be quite personal. Yet, if anyone likes to share their commitment with the group, they can do so, knowing that other people will most likely hold you accountable to what you are committing yourself to. This is a great opportunity for making your commitments now 'in public', so that others can then also help you to truly follow through on them.

HAND OUT *the* ***WORKSHOP EVALUATION FORMS*** *(to get participants' feedback)* ***now****.*
*You can use Worksheet 7 (p. 89) for this or use a specific one from your organization.*

## FINAL CLOSING ROUND

Similar to what you did at the end of the first day, initiate a closing round for the workshop.

Again, you will start a sentence that everyone is going to complete, one after the other, going around the circle, with you as facilitators leading by example (= you go first!).




The sentence to be completed is: ***"The most interesting and important thing that I have learned from this workshop was…"***

…which is also the first question from the previous exercise.

# 4. BACKGROUND INFORMATION

## WHAT IS MALNUTRITION?

Malnutrition refers to deficiencies, excesses, or imbalances in the form of having either too much (over-nutrition: overweight/obese) or too little energy or nutrients (under-nutrition: stunting/wasting/underweight + micro-nutrient deficient).

Therefore, people may become malnourished if they do not eat enough food overall, and/or a person with malnutrition may lack macro- or micro-nutrients (or both), in the form of energy, protein, fats, vitamins, minerals, and other essential substances that their body needs to function. On the other hand, people who eat plenty but do not have enough variation in their diet, especially when eating a lot of ultra-processed food, can also become malnourished.

## UNDER-NUTRITION

Under-nutrition is a condition that occurs when a person does not get enough of the vitamins, minerals, and other nutrients their body needs to function properly. It can be caused by a lack of access to nutritious food, an inability to absorb the nutrients from the food that is consumed, or a combination of both.

### UNDER-NUTRITION CAN MANIFEST IN DIFFERENT FORMS, SUCH AS:

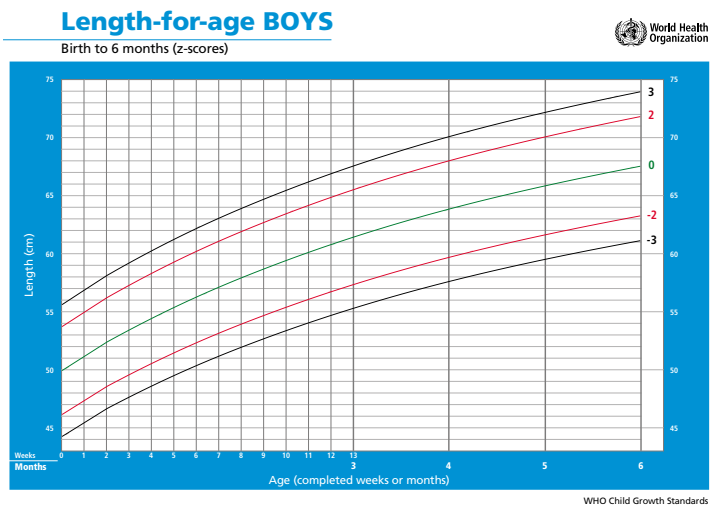
- ☑ Wasting: where a person has a low weight for their height
- ☑ Stunting: where a person is too short for their age
- ☑ Micro-nutrient deficiencies: where a person is lacking in specific vitamins and minerals, like iron, iodine, vitamin A, and zinc.

### PEOPLE AT HIGH RISK OF SUFFERING FROM UNDER-NUTRITION:

- ☑ Individuals with higher nutritional needs such as infants and children, old-aged people, as well as pregnant and lactating (breastfeeding) women.
- ☑ People with long-term health conditions such as HIV and AIDS, TB, Cancer etc.
- ☑ Individuals that have problems with chewing, and swallowing or struggle with anorexia (abnormal loss of appetite, at times requiring also psycho-social support).

## SEVERE MALNUTRITION

Severe Acute Malnutrition (SAM) is defined as infants and children (under 5 years of age) who have a mid-upper arm circumference (MUAC) less than 11.5 cm, and/or a weight-for-height/length less than -3 Z-scores (below the average) of the WHO Child Growth Standards, and/or who have bilateral pitting edema (= a swelling in the body caused by excess fluid, that when you press it, an indentation or 'pit' remains).




*"Z-Score" example that shows what "-3" means.*

## EXAMPLES OF SEVERE MALNUTRITION

**Kwashiorkor:** characterized by edema (swellings caused by excess fluids), loss of muscle mass, and changes in skin color and texture.

**Marasmus:** characterized by severe weight loss, muscle wasting, and weakness.

**Marasmic kwashiorkor:** a combination of both kwashiorkor and Marasmus, characterized by a failure to thrive, severe weight loss, and muscle wasting.

**Stunted growth:** characterized by a child's height significantly below the average for their age due to chronic malnutrition.

**Micro-nutrient deficiencies** (also known as *'hidden hunger)*: lack of sufficient vitamins and minerals, characterized by specific deficiency symptoms such as night blindness (Vitamin A deficiency), scurvy (Vitamin C deficiency), beriberi (thiamine deficiency), etc.


Kwashiorkor


Marasmus


Kwashiorkor + Marasmus


Stunted Growth

## WHAT IS 'STUNTED GROWTH' OR 'STUNTING'?

… is the reduced growth and impaired development that children may experience because of poor nutrition, recurrent infections (e.g. diarrhea), often combined with inadequate psychosocial stimulation. The World Health Organisation defines 'stunting' as being too short for one's age, according to internationally established child growth standards.

## EFFECTS OF STUNTING

### SHORT-TERM EFFECTS OF STUNTING INCLUDE:

- Reduced growth and development during the first years of life,
- Delays in reaching developmental milestones,
- Reduced cognitive development and school performance,
- Increased susceptibility to illness and infection,
- Increased risk of death from malnutrition-related causes.

### LONG-TERM EFFECTS OF STUNTING INCLUDE:

- Permanent stunting of growth, which can lead to shorter adult height and reduced physical capabilities,
- Reduced cognitive development, which can lead to lower educational and reduced economic productivity,
- Increased risk of chronic diseases in adulthood such as hypertension, Diabetes, and cardiovascular disease,
- Mental health issues may also be correlated with malnutrition, such as depression and anxiety,
- Economic Consequences: Malnutrition in childhood may lead to reduced productivity throughout the life of the affected individuals, which in turn can lead to lower economic growth and increased poverty.

## CAUSES OF UNDER-NUTRITION

- **Medical conditions:** Certain medical conditions can also contribute to malnutrition, such as anorexia nervosa, bulimia, and gastrointestinal disorders. These conditions can affect an individual's ability to absorb and utilize nutrients from food.

- **Lack of access to enough and sufficiently nutritious food:** Malnutrition can occur when individuals do not have access to the necessary amount or variety of nutritious foods, such as those that are high in protein, vitamins, and minerals.
- **Food insecurity:** Even when food is available, it may be unaffordable, of poor quality, or unsafe. This can lead to malnutrition, especially among vulnerable populations such as low-income individuals and families.
- **Poverty:** Malnutrition is more common in low-income countries and among lower-income individuals and families within higher-income countries. This is often due to the cost of nutritious food, lack of access to clean water, and poor sanitation.
- **Socio-economic factors:** Socio-economic factors such as lack of education, poor health care, gender-based violence, war, displacement, and other forms of violence and/or oppression can all contribute to malnutrition by limiting access to key resources and reducing the ability to find and prepare nutritious foods.
- **Social Inequalities:** Due to discriminatory structures and systems based on gender, race, class, etc., certain groups may face barriers to accessing food and healthcare, which in turn leads to malnutrition.

## OVER-NUTRITION

Over-nutrition refers to a condition where an individual consumes more energy (kilojoule) than the body needs. It can occur due to a diet high in kilojoule-dense foods, such as fast food, sweetened drinks and/or ultra-processed snacks, combined with an inactive or less active lifestyle.

### THE WORLD HEALTH ORGANIZATION (WHO) DECLARED THAT:

"Childhood obesity is one of the most serious public health challenges of the [2]First century. The problem is global and is steadily affecting many low- and middle-income countries, particularly in urban settings. The prevalence has increased at an alarming rate. Globally, in 2015 the number of overweight children under the age of 5, is estimated to be over 42 million.

Almost half of all overweight children under 5 lived in Asia and one quarter lived in Africa."[2]

Especially children are very negatively affected by obesity, with various food additives in ultra-processed foods leading to food toxicity, as these foods include artificial colours, refined sugars, caffeine, artificial flavour, processed grains, preservatives, sulphites, and artificial sweeteners. Worldwide, about 20% of children (5-19 years) were overweight or obese in 2016, while it was only 4% in 1975 (= 40 years ago)[1].

## DANGERS OF CHILDHOOD OBESITY

- Childhood obesity can lead to a variety of health problems, including type 2 Diabetes, high blood pressure, sleep apnea, and joint problems.
- It can also increase the risk of developing certain types of cancer in adulthood.
- Obese children and adolescents are also more likely to experience psychological problems, such as low self-esteem and depression.
- Furthermore, obese children are more likely to become obese adults, which can lead to a lifetime of health problems.
- Additionally, childhood obesity can cause a strain on the healthcare system and increase overall healthcare costs.

## HOW TO REDUCE CHILDHOOD OBESITY:

If we want to prevent childhood obesity and support children's healthy development, we have to concentrate on our youngest children, and early education and childcare providers play a critical role.

[1] Source: https://www.worldobesity.org/what-we-do/our-policy-priorities/childhood-obesity

There are many things that individuals and governments can do to reduce childhood obesity:

- Parents and caregivers can promote healthy eating habits and regular physical activity in children. They can also set a good example by maintaining a healthy lifestyle themselves.
- Schools can promote healthy eating by providing nutritious meals and snacks, and by offering physical education classes and opportunities for physical activity during the school day.
- Schools and parents can also talk to tuck shop owners to offer more healthy food for the children.
- Healthcare providers can more regularly screen children for obesity and provide counseling and support to children and their families to help them make healthy lifestyle changes.
- Government can play a role by setting standards for nutrition and physical activity in schools and childcare settings, and by implementing policies that promote healthy eating and physical activity, such as increasing access to safe and affordable recreational spaces.
- Implementing a sugar tax on 'cool drinks' and other sweet beverages and sweet food items would also help consumers make healthier choices and gives additional income to the state to spend on nutrition-related health intervention and/or on nutritious and organic local food production.

**BE AWARE AND REMEMBER:**

- ☑ As an adult you are a role model. Kids do as you do, especially when they are young.
- ☑ As a trainer/facilitator, you are in a unique position to educate parents and caregivers about healthy eating and the importance of educational play and activity.
- ☑ Limit sugar intake by mixing juice with water 50-50 for your kids and yourselves.
- ☑ Too much screen time on any electronic devices is bad for children and potentially harmful. Educate yourself: *https://kidshealth.org/en/parents/net-safety.html*
  *https://www.unicef.org/parenting/child-care/keep-your-child-safe-online*

**Regular exercise** of children and adults is associated with a lower risk of developing several types of cancer, including Breast cancer, Colon cancer, Endometrial cancer and Prostate cancer.

While the exact mechanisms are still being investigated, several potential explanations exist for how exercise might help prevent cancer:

- **Weight management:** Maintaining a healthy weight is crucial, as obesity is a significant risk factor for various cancers. Exercise helps you maintain a healthy weight, indirectly reducing cancer risk.
- **Hormone regulation:** Regular physical activity can positively influence levels of certain hormones, like estrogen and insulin, potentially lowering the risk of hormone-related cancers.
- **Immune system function:** Exercise can strengthen the immune system, potentially improving the body's ability to identify and eliminate abnormal cells that could turn cancerous.
- **Inflammation reduction**: Chronic inflammation is linked to various health issues, including cancer.

**MODERATELY INTENSE FOR 1 HOURS 30 MIN - 2 HOURS 30 MIN**

- ***Brisk Walking- walking at a fast pace***
- ***Dancing***
- ***Manual Labor - engaging in farming, gardening or construction work***

**VIGOROUSLY INTENSE FOR 1H25MIN**

- ***Running / Jogging***
- ***Jumping rope***
- ***Hiking up a hill***
- ***Traditional games***

NUTRITION HOTLINE: **081 555 3888**

## FOOD GROUPS

People can get all the nutrients they need to be healthy and active by consuming a wide variety of foods. Eating a range of foods from each food group contributes to a balanced diet because each food group offers similar but unique nutrients. Every country establishes its own food groups in accordance with its own conditions.

According to Namibia's Food and Nutrition Guidelines (2000 - *www.nafsan.org/resources*) there are 4 main food groups (categories):

- ✓ Cereals and Cereal Products (= Staple Food),
- ✓ Animal Sources and Beans (= Proteins),
- ✓ Vegetables and Fruits, and
- ✓ Fats, Oil and Sugar

### CEREALS AND CEREAL PRODUCTS

… are '*go-foods*', rich in complex carbohydrates, providing energy to the body's cells, tissues, and organs. They are essential for physical activity and the basic functioning of the body.

| EXAMPLES OF CEREAL AND CEREAL PRODUCTS = "GO" FOOD + OTHER FOOD RICH IN STARCH (= COMPLEX CARBOHYDRATES) | | |
|---|---|---|
| **CEREALS** | **ROOTS** | **STARCHY VEGETABLES** |
| Bread (brown) | Potatoes | Corn |
| Mahangu | Sweet potatoes | Green Peas |
| Maize | Beetroot | Butternut |
| Rice (brown) | Carrots | Pumpkin |
| Oats | Radish | |

### PROTEINS

Proteins (also known as the 'grow-foods) are made up of important 'amino acids', which serve as the building blocks for several body parts, including the skin, hair, and other substances such as enzymes and antibodies. Food rich in protein help to maintain life and promote growth, repair worn out and damaged body tissues.

Proteins can come from animal and plant sources. Whereby, plant-based protein sources cause less inflammatory reactions and possible diseases than animal sources.

| EXAMPLES OF PROTEINS = "GROW" FOOD | |
|---|---|
| **ANIMAL-SOURCE OF PROTEIN** | **PLANT-SOURCE OF PROTEIN** |
| Beef, Chicken, Pork, Game | Chickpeas, Lentils, Kidney beans |
| Zambezi bream, Pilchard, Catfish | Nuts, Groundnuts, Cow peas, Green peas |
| Eggs, Milk, Cheese, Yoghurt | Almonds, Soy beans (soy milk, soy mince, tofu, etc) |

### VEGETABLES AND FRUITS

Vegetables and fruits are also known as 'glow-foods', as they are rich in vitamins and minerals required to support the body's regulatory and immune systems, including naturally shining and healthy skin, hair, eyes etc. Fortified foods (such as iodized salt) are also good sources of essential vitamins and minerals (= micro-nutrients).

| EXAMPLES OF VEGETABLES AND FRUITS = "GLOW" FOOD | |
|---|---|
| **VEGETABLES** | **FRUITS** |
| Beetroots, Bell peppers, Butternuts, Carrots, Pumpkins, Spinach, Sweet potatoes, Tomatoes | Apples, Avocados, Bananas, Dates, Guavas, Pawpaws, Pineapples, Mangoes, Oranges |

### SPECIFIC HEALTH BENEFITS OF CONSUMING CERTAIN FRUITS:

**Oranges, guavas, papaw, lemons, and mangoes** are good sources of Vitamin C, boost our immune system and support the body's cells and tissues to grow and repair themselves

**Apples** are a good source of fiber (= eat the peel and inside too), help to reduce cholesterol, feel full for longer, and help avoid overeating (reduces obesity and assists in maintaining a healthy body weight)

**Bananas** a good source of carbohydrates, potassium, magnesium, ascorbic acid, and Vitamin A, regulate blood pressure, and provide energy. They may at times make you relax and improve your mood

## FATS AND OILS

Fats and Oils are vital nutrients that supply and store energy, help keep our bodies warm, cushion vital organs and protect them from injuries, help to absorb key vitamins (A, D, E, K) and is necessary for producing important hormones, such as estrogen and testosterone. It also helps to activate the appetite by giving food flavour and taste.

However, too much fat (= excess fat) can be harmful, possibly causing high blood pressure, type 2 Diabetes, heart diseases, stroke, arthritis, inflammation, sleep apnea etc.

It is important to know that not all fats are the same, as the advice is to:

| | | |
|---|---|---|
| ✓ **'love' certain fats** | **= healthy** | **= mono- and polyunsaturated fat** |
| ✓ **'limit' certain fats** | **= in-between** | **= saturated fat** |
| ✓ **'lose' certain fats** | **= unhealthy** | **= artificial trans-fatty acids** |

In general (and at room temperature), the 'healthy' fats are usually liquid (then called 'oils' = marula, groundnut, olive, sunflower), yet they are also in avocados, nuts, and fish/seafood.

Those fats that should be consumed in moderation (=limited) are mostly solid, and they are made from plants (such as margarine, coconut, peanut butter) or from animal sources: butter, milk fat (ghee), or also beef, pork, and chicken fat.

The unhealthy trans-fats are also **solid** at room temperature, and they are found in:

- fast food, such as fries ['warm chips'], fried chicken, nuggets, onion rings and fat cakes,
- pastries, such as cookies, donuts and cakes,
- snacks, such as chips and crackers,
- spreads, such as margarine, and
- ultra-processed food and pre-prepared (often deep-frozen) products.

The good news is that **Namibia is home to a variety of indigenous plants that produce oils** with unique qualities and benefits for overall health. Indigenous people have known how to extract and use these local oils for decades, and now they are increasingly gaining interest in the global market.

A few examples include:

- **Marula oil** - from the seeds of the marula fruit. It is rich in antioxidants and essential fatty acids making it an effective moisturizer for dry or damaged skin and hair.
- **Kalahari melon seed oil** - from the seeds of the wild watermelon, high in antioxidants and essential fatty acids, which makes it an excellent moisturizer for the skin.
- **!Nara oil** - from the seeds of the !Nara plant, rich in vitamins and Omega-6 essential fatty acids that help to reduce the risk of heart disease and help with sensitive/dry skin.
- **Baobab oil** - from the seeds of the baobab tree. The oil is rich in nutrients like vitamins A, E, C, as well as calcium and magnesium, and also essential fatty acids which can help to improve overall health (including skincare, haircare).
- **Jojoba oil** - from the seeds of the jojoba plant. It is rich in vitamins E and B, as well as minerals like copper and zinc. The oil is used for its moisturizing properties and is often found in skincare and haircare products.
- **Ximenia Oil** - from the seeds of the Ximenia tree. It is a rich in fatty acids, such as oleic and linoleic acid, making it an excellent moisturizer for dry or mature skin.

## HIDDEN SUGARS

Hidden sugars refer to any form of sugar in food or drinks where we would not suspect as much sugar to be in and/or where sugar may be labeled differently, for example as 'modified starch', syrups, juices, or concentrates. Hidden sugars also often end in '…ose': sucrose, dextrose, maltose, fructose, lactose, and glucose.

Also, be aware that the nearer something is to the top of the ingredient list, the bigger the amount that is included. It is important to read food labels before you buy any food item.

### EXAMPLES OF FOOD WITH HIDDEN SUGAR

- Tomato Sauce
- Salad Dressing
- Yoghurt (flavoured)
- Peanut Butter
- Dried Fruits
- Canned Fruits
- Breakfast Cereals
- Cooldrinks, Energy Drinks, Juices


### RECOMMENDED DAILY SUGAR INTAKE

The WHO recommends an intake of 10 teaspoons (50 grams) of sugar per day for an adult.

This does not only refer to 'added' sugar, but it includes naturally occurring sugars found in honey, fruit juices, syrups, and fruit-juice concentrates, as well as all added sugars.

### TOO MUCH ADDED SUGARS MAY LEAD TO:

Obesity, Diabetes Type 2, Fatty Liver, Heart Disease, Depression, Joint Pains, Chronic Inflammation

### TIPS TO REDUCE THE INTAKE OF ADDED SUGARS

- Drink water alongside your meals instead of juice or cool drink – or at least mix juice (50/50)
- Avoid drinking sweetened alcohol, i.e., those were juice or sodas have been added,
- Consume cool drinks and treat sweets or very sweet food only as an occasional treat,
- Consciously reduce the number of spoons of sugar you put in your tea and/or coffee,
- Swap flavoured yoghurt with plain yoghurt instead add fruits to enhance the flavour,
- Eat more fresh foods (especially fruits) instead of canned or otherwise ready-prepared food.

## HIDDEN FATS

Hidden fats are fats that are often disguised on food nutrition labels as other ingredients. They are listed on ingredient labels as hydrogenated or partially hydrogenated oil.

### EXAMPLES OF FOOD WITH HIDDEN FATS

- Chips
- Mayonnaise
- Cookies
- Fat cakes
- Hamburgers
- Chocolate
- Warm (slap) Chips
- Biltong
- Ice Cream
- Pies
- Sausages
- Droë wors

### FATS - RECOMMENDED DAILY INTAKE


Energy (kilojoule) intake and expenditure need to balance each other out. Total fat should not be more than 30% of total energy consumption to prevent unhealthy weight gain.

Some fats are healthier than others, yet all fats have a lot of kilojoules.

So rather limit them in your diet to help stay at a healthy weight

## PROCESSED VS ULTRA-PROCESSED FOOD

**Processed foods** refer to any food item that undergoes deliberate changes before being consumed or sold to consumers. These changes can include washing, cutting, cooking, canning, bottling, drying, freezing, or adding preservatives for increased shelf life.

It is important to note that processed foods are not always bad for us. In fact, some processing methods can actually help to retain nutrients in the food, for example:

- Chopped, squeezed, chilled, frozen or dried fruits and vegetables
- Fresh (unpasteurized) or pasteurized plain yoghurt
- Home-made nut butters
- Canned beans, lentils or peas

What matters is the **level of processing** and the ingredients used during the process!

**Ultra-processed foods**, also called highly processed foods, can be cheap, convenient, tasty, and tends to have a long shelf life, but often have lots of added sugar, refined carbohydrates, trans fats, salt/sodium, which tends to have a lot of calories per bite. They mostly contain artificial colourings, sweeteners and preservatives, and they can be highly addictive, so one could say that ultra-processed food is often not designed with health in mind but with profit.

## DANGERS OF ULTRA-PROCESSED FOOD

Ultra-*processed foods are often more concentrated in calories (=high energy-dense) and lower in fiber and nutrients (= low nutrient-dense) than* minimally processed foods. They have also been linked to **various health issues:**

- Nutritional Deficiencies: Ultra-processed foods are often stripped of essential nutrients during processing, often leading to an unbalanced diet that lacks vitamins, minerals, and fibre. Examples include chips, crackers and pre-prepared 'ready-to-heat' food.
- Excessive sugar, salt, and trans fats: These foods tend to be high in added sugars, salt/sodium, and unhealthy fats, potentially contributing to weight gain, high blood sugar levels, gut disturbances and can even have psychological and emotional effects on people. Examples include carbonated drinks (sodas), sausages, milk chocolate, pies and cakes.
- Artificial sweeteners (e.g., 'aspartame') are sometimes used, whose long-term effects aren't known but wich have been linked to a higher risk of obesity, type 2 diabetes, and other health issues. Examples include energy drinks, sugar-free candies and chewing gum, yogurt, puddings, 'slimming' products and shakes.
- Chemical additives, like artificial preservatives, stabilisers and colorants are often added, which can carry severe health risks. Examples include icecream, breakfast cereals, and instant soups and sauces.
- Digestive Issues: Artificial additives and lack of natural fibres can upset the gut's friendly bacteria and disturb its natural balance, which may lead to digestive concerns that can include cramping, abdominal pain, bloating, gas, and diarrhea and/or constipation. Studies have confirmed that a high intake of ultra-processed food can negatively impact gut health and an increased risk of inflammatory bowel disease and a weaker immune system.
- Long-term Health Risks: Regular consumption of ultra-processed foods has been associated with an increased risk of obesity, type 2 diabetes, cancer, and other disorders.

## UNDERSTANDING THE CATEGORIES OF PROCESSING:

An often used framework is called NOVA, a classification system for food based on the extent and purpose of their processing. It is increasingly used to find out how far the level of food processing impacts our health. NOVA categorizes foods into four groups:

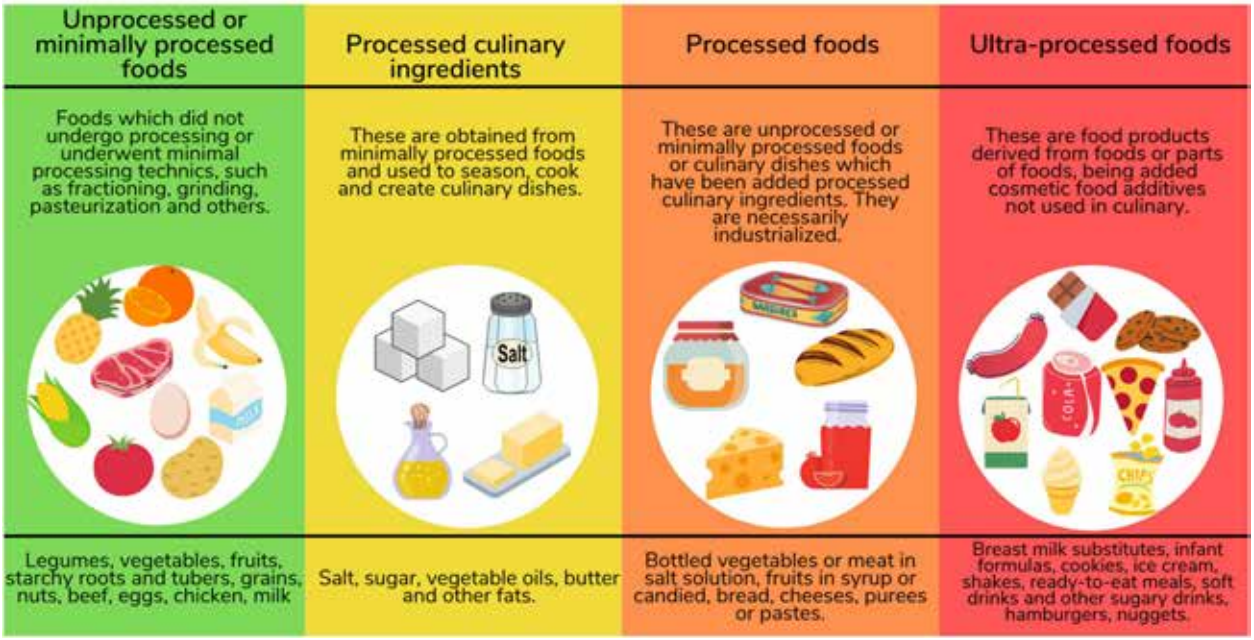
1 - Unprocessed or minimally processed foods.

2 - Processed culinary ingredients.

3 - Processed foods.

4 - Ultra-processed foods.

## NOVA Food classification




You can identify ultra-processed food by looking for **Uncommon Ingredients.** These are things you don't typically use in your kitchen, like hydrolyzed proteins, soya protein isolate, gluten, casein, whey protein, mechanically separated meat, fructose, high-fructose corn syrup, fruit juice concentrate, maltodextrin, dextrose, lactose, or hydrogenated oil. If you find any of these ingredients in the beginning or middle of the list, it's a sign that the product is ultra-processed.

You can also look for **Additives**, often at the end of the list. These include flavours and flavour enhancers, colors, emulsifiers, emulsifying salts, sweeteners, thickeners, and anti-foaming, bulking, carbonating, foaming, gelling, and glazing agents. If you see any of these additives, the product is likely ultra-processed.

*TIP:* **Always check your Food Labels**.


| **ROLE OF MEN AS FATHERS** linked to Session 5, pages 34-39 | | |
|---|---|---|
| **During pregnancy:** | **During labour and delivery:** | **After birth:** |
| • Go with their girlfriend or wife to clinics or hospitals for antenatal check-ups. | • Make sure there is a trained birth attendant, such as a midwife or doctor. | • Encourage continuous breastfeeding for 2 years; the first 6 months = exclusive (!) |
| • Remind their girlfriend or wife to take her iron and folate (Vitamin B) tablets. | • Make arrangements in advance to ensure safe transport to a clinic or hospital when labour starts. | • Help by doing household chores: collect firewood, boil water, make tea, wash dishes/ clothes, and take care of other older children. |
| • Provide extra food and enough water/ tea to drink during pregnancy and during lactation. | • Be physically, mentally and emotionally present during birth. | • Be present, play with the baby, change diapers, and enable the mother to get enough rest and 'sleep when baby sleeps.' |
| • Talk with their girlfriend or wife about how they would like to feed the baby | • Encourage breastfeeding immediately after birth; first healthy milk (colostrum) is usually thick and yellowish and nutritious. | • Pay attention to typical signs or cues of hunger by the baby as it becomes a young child. Feed children who are older than 6 months of age with a variety of first foods (complementary). |
| • Be understanding of wife or girlfriend, as the female body goes through major changes and stress, often emotionally. This can lead to discomfort, cravings and mood swings; be as supportive as possible. | • Ensure there is enough water or tea to drink for the breastfeeding mother, as this is very important for breastmilk to be produced. | • Go with their girlfriend or wife to the health clinic, hospital or doctor when the baby is sick, as well as for regular growth monitoring and advice/ support, and for immunizations. |

## THE FIRST 1,000 DAYS

The first 1,000 days of a child's life begins at conception and continues until 2 years of age. During this time, children experience rapid growth in terms of their physical, emotional, social, and cognitive (mental) development. These developmental areas are interconnected, as each area influences the development of other areas:

1. **Physical development** – encompassing gross motor skills (= whole body movement, e.g. using arms and legs), fine motor skills (= smaller movements, e.g. using pen, spoon or toothbrush properly) balance, coordination, and health and nutrition,
2. **Social development** – establishing and maintaining relationships with other people, and socialising with family members and people outside the home,
3. **Emotional development** – achieving positive self-esteem and handling emotions, and
4. **Cognitive development** – perceiving, thinking, reasoning, concentrating, remembering, solving problems, developing language, and gaining an understanding of the world.

Depending on the age of the child, each of these areas has certain milestones to be reached, which serve as useful orientation for parents to identify developmental delays, which can be indicators for possible disabilities or special needs that a child may have. Those should be addressed as early as possible, by parents seeking support and advise from professionals to minimize any negative effects later on in life.

**You find more detailed information in MGEPESW's ECD Curricula and ECD Resource Guides for Children aged 0-2 years and 3-4 years:** *www.nafsan.org/ecd*

### KEY ASPECTS THAT SUPPORT DEVELOPMENT DURING THE FIRST 1,000 DAYS:

- ✓ **Proper Nutrition:** Children need proper nutrition in order to grow and develop fully, which includes breast-milk for at least the first 6 months of life, and a slowly and gradually introduced nutritious diet full of variety as from 6 months.
- ✓ **Love and Attention:** Children thrive when they receive plenty of love and attention from caregivers. This can include reading to them, talking to them, and providing a variety of age-appropriate toys and activities to help them learn and explore.
- ✓ **Positive Relationships:** Children need consistent, positive relationships with caregivers in order to develop a sense of trust and security.
- ✓ **Protection from Harm:** Children should be protected from harm and abuse in order to ensure their physical and emotional well-being.
- ✓ **Stimulation and Play:** Children need age-appropriate stimulation in order to learn and grow. This can include toys and activities that encourage exploration and learning, as well as opportunities to interact with others and experience new things.

## ALCOHOL AND SMOKING DURING PREGNANCY

### ALCOHOL

Drinking alcohol during pregnancy can have serious health consequences for your baby. The alcohol in your blood quickly passes through the placenta and the umbilical cord to your baby. The placenta grows in your uterus (womb) and supplies the baby with food and oxygen through the umbilical cord. There is no safe amount or safe time to drink alcohol during pregnancy.

The potential risks and health problems for your baby from even limited alcohol consumption during pregnancy include:

- **Premature birth:** Drinking alcohol increases the risk of delivering the baby before 37 weeks of pregnancy, leading to potential health complications.
- **Brain damage and developmental issues**: Alcohol can harm the developing brain of the fetus, leading to cognitive and behavioral problems and affecting overall growth and development.
- **Birth defects:** Alcohol consumption during pregnancy can cause structural abnormalities and functional problems in various organs of the baby's body, such as the heart, hearing, and vision.
- **Fetal alcohol spectrum disorders (FASDs):** FASDs are a range of conditions that can occur when a baby is exposed to alcohol in the womb. These disorders can result in intellectual disabilities, developmental delays, and physical impairments. Binge drinking poses a higher risk of FASDs.
- **Low birth weight:** Drinking alcohol during pregnancy can contribute to the baby being born with a lower birth weight than average (less than ± 2.5 kg).
- **Miscarriage and stillbirth:** Alcohol consumption increases the risk of miscarriage (before 20 weeks of pregnancy) and stillbirth (after 20 weeks of pregnancy), which can be emotionally devastating for parents.

**It's important to remember that the safest option for the health of your baby is to avoid alcohol entirely throughout pregnancy. If you have concerns about alcohol consumption or need support in quitting, consulting with healthcare professionals for guidance and assistance.**

## SMOKING

Smoking during pregnancy exposes your baby to harmful chemicals like nicotine, carbon monoxide, and tar. These substances can cross the placenta and reach your baby, causing various adverse effects. The chemicals in tobacco smoke can reduce the amount of oxygen available to your baby, which can hinder their growth and harm their lungs and brain.

If you smoke during pregnancy, your baby is at a higher risk of the following:

- **Premature birth**: There is an increased likelihood of your baby being born before 37 weeks of pregnancy.
- **Birth defects:** Smoking during pregnancy can contribute to the development of birth defects, including cleft lip or cleft palate. Birth defects are conditions present at birth that affect the structure or function of one or more parts of the body, potentially impacting overall health and development.
- **Low birth weight**: Your baby may be born weighing (less than ±2.5kg), which is considered low birth weight.
- **Miscarriage or stillbirth:** Smoking increases the risk of miscarriage, which occurs before 20 weeks of pregnancy, as well as stillbirth, which happens after 20 weeks of pregnancy.
- **Sudden Infant Death Syndrome (SIDS):** Babies whose mothers smoked during pregnancy have a higher risk of SIDS, which refers to the unexplained death of a baby under 1 year of age, typically during sleep.

**It is important to understand the dangers of smoking during pregnancy, even if it is 'just' second-hand (= indirect) smoking, and take steps to quit smoking or seek assistance in doing so to significantly improve the health outcomes for both you and your baby.**

## MATERNAL NUTRITION

Maternal nutrition is the dietary intake and nutritional status of a woman during pregnancy. It is important for women to consume a variety of nutrient-dense foods to support the health and development of the fetus. Namibia's Guidelines on nutrition during pregnancy are accessible here: *www.nafsan.org/breastfeeding*.

### SPECIFIC NUTRIENTS AND FOODS BENEFICIAL FOR MATERNAL HEALTH DURING PREGNANCY:

- ✓ **Folic acid:** This B vitamin is important for the proper development of the fetal nervous system and can help to prevent neural tube defects. Good food sources of folic acid include leafy green vegetables, citrus fruits, and fortified cereals.
- ✓ **Iron:** Adequate iron intake is necessary for the formation of red blood cells in the developing fetus and to prevent anemia in the mother. Good food sources of iron include red meat, poultry, fish, beans, and dark leafy greens.
- ✓ **Omega-3 fatty acids:** These essential fatty acids are important for brain and eye development in the fetus. Good food sources of omega-3 fatty acids include fatty fish (salmon and tuna), and walnuts.
- ✓ **Calcium:** Calcium is important for the development of the fetus's bones and teeth, as well as to protect the mother's teeth and bone density. Good food sources of calcium include dairy products and leafy green vegetables such as broccoli and kale.
- ✓ **Vitamin D:** Vitamin D is important for the absorption of calcium and for the healthy growth of the fetus's bones and teeth. Good food sources of vitamin D include fatty fish, eggs, fortified milk, and cereal.

### FOOD/DRINKS NOT TO BE CONSUMED DURING PREGNANCY AND BREASTFEEDING

- ✓ **Alcohol:** Drinking alcohol during pregnancy can increase the risk of birth defects and developmental disorders in the fetus. Therefore, it is recommended that pregnant women avoid alcohol.
- ✓ **Raw or undercooked meats, fish, and eggs:** Raw or undercooked meats, fish, and eggs can contain harmful bacteria that can cause food poisoning, which can lead to serious health problems for both the mother and the fetus. It is recommended to make sure that these foods are fully cooked before consuming them.
- ✓ **Fish with high levels of mercury:** Fish such as sharks, swordfish, king mackerel, and tilefish contain high levels of mercury, which can be harmful to the developing fetus. Pregnant women should limit their intake of these types of fish.
- ✓ **Caffeine:** High levels of caffeine intake during pregnancy have been associated with an increased risk of miscarriage, premature birth, and low birth weight. Pregnant women should limit their intake of caffeine.

## BREASTFEEDING

Breastfeeding is the process of feeding a baby with milk from the mother's breasts, and it should be initiated within an hour after the baby is born.

It is recommended that infants be **exclusively** breastfed for their first 6 months in order to provide them with the best possible start in life. During exclusive breastfeeding, babies should not be given any water or other foods, except for medication or medical syrups to be provided or prescribed by a trained registered nurse or doctor. Breast milk is the perfect food for infants and provides all the nutrients, antibodies, and other substances that a baby needs to grow and develop in the best way possible.

**Exclusive Breastfeeding means NO:**

- Formula milk
- Tea or other drinks such as juice
- Water or sugar water before 6 months
- Solid foods such as soft porridge before 6 months
- 'Giving up' too quickly when it seems that you (mother) are not producing enough milk.

**INSTEAD, MAKE SURE:**

- ✓ Baby is properly latched onto your breasts and hereby able to drink properly,
- ✓ Baby is offered breast regularly and frequently (every 2-3 hours for newborns), because the more often they drink the more milk is being produced,
- ✓ Baby sucks long enough. Just 5 minutes is likely not enough to stimulate more milk production. Let baby nurse (drink) for about 10-15 minutes each side,
- ✓ Mothers to drink more water, tea, or any other non-alcoholic and not too sweet liquids to ensure the body has enough fluids (mainly water!) to produce milk.

Sometimes babies also have temporary growth-spurs during which their appetite is bigger and for a short while the demand is simply bigger than the supply. Don't worry, your body will also increase the supply within a few days.

**Other tips** to produce more milk are to:

- ✓ use breast compressions while nursing: hold your breast between your thumb and fingers, and gently squeeze when your baby is only suckling but not drinking,
- ✓ try and keep your baby on one side until your breast has been fully drained of milk before switching sides. In addition, you can pump after your baby is done feeding to make sure that you drain your breast of milk. If you get all the milk out, your body will be stimulated to create a larger amount for the next feeding.

Most importantly, take good care of yourself while you're breastfeeding. Make sure you eat a well-balanced and nutritious diet, drink lots of water, and sleep as much as you can. Good advice is: 'Sleep when baby sleeps!. There are also lactation cookies, teas, and medication - yet, if you are struggling it is best to talk to a nurse, health worker or a breastfeeding consultant.

**NOTE:** ***Breast-milk*** *is the only food infants need for proper growth and development for the first 6 months of their lives, as it contains of all the nutrients the baby needs.*

**BENEFITS OF BREASTFEEDING FOR THE CHILD INCLUDE:**

- ✓ Breast milk is the perfect food for infants and provides all the nutrients, antibodies, and other substances that a baby needs to grow and develop.
- ✓ Breastfeeding can help protect against infections and diseases such as diarrhea, respiratory infections, and allergies.
- ✓ Breastfeeding can help reduce the risk of sudden infant death syndrome (SIDS).
- ✓ Breastfeeding may help improve cognitive development and intelligence.

**BENEFITS FOR THE MOTHER – BREASTFEEDING CAN...**

- ✓ help the mother bond with her baby and feel a sense of accomplishment/satisfaction.
- ✓ save the family money as there is no need to purchase infant formula.
- ✓ help the mother lose weight which she gained during pregnancy.
- ✓ help the mother's uterus return to its pre-pregnancy size sooner.
- ✓ help reduce the risk of certain types of cancer, including breast and ovarian cancer.

## COMPLEMENTARY FEEDING / FIRST FOODS

Infants grow rapidly in their early years, and while breast milk alone is completely adequate for the first 6 months of life, the children's rapid growth beyond 6 months of age creates a need for additional solid foods with adequate essential nutrients, as breast milk alone can no longer meet complete nutritional requirements.

Therefore, any foods or liquids other than breast milk given to young children during this period are regarded as complementary foods, and the process of feeding them is called complementary feeding, also knows as 'first foods'.

Complementary feeding occurs during a very critical period in a child's development and can influence their long-term health outcomes. Introducing complementary/first foods too early or too late can have adverse effects on infants.

Early introduction of complementary foods (= solid foods before 6 months of age) is problematic because the digestive system is still developing and cannot handle solids. It can lead to a reduction in available breast-milk and can also lead to diarrhea, especially if the food is prepared in an unhygienic manner. Introducing solid food too early may further increase the baby's risk of developing food allergies and can also cause kidney problems in adult life.

Yet, the late introduction of complementary foods, (= solid foods after 6 months of age), can lead to inadequate nutrient intake and insufficient growth and delays in overall development.

During complementary feeding, **infants need to be introduced to a variety of nutrient-rich foods** such as fruits, vegetables, grains, dairy products and meat, as this provides infants with important nutrients for growth and development, including protein, iron, zinc, and vitamin A.

Moreover, introducing infants to a wide variety of nutritious foods and repeatedly exposing them to the same types of food (= giving them this food about eight times) helps them accept (and like!) different foods, especially vegetables.

REMEMBER

**There is not one single food that provides all the nutrients needed in the body! Ensure you include food from at least 3-4 food groups when feeding your infants.**

**Complementary/First foods should be:**

- ***Timely*** – they should be introduced when the need for energy and nutrients exceeds what can be provided through exclusive breastfeeding,
- ***Adequate*** – they should provide sufficient energy, protein and micro-nutrients to meet a growing child's nutritional needs,
- ***Safe*** – they should be hygienically stored and prepared, and fed with clean hands using clean utensils and not bottles and teats, and
- ***Properly fed*** – they should be given consistent with a child's signals of appetite and satiety, and that meal frequency and feeding are suitable for age.

**NOTE:** **Continued breastfeeding** throughout the complementary feeding period (from 6 (six) months of age until the child is at least 2 (two) years old) continues to provide the child with energy, essential fats, proteins and vitamin A, and it strengthens his/her immune system.

***More Information on Infant and Young Child Feeding:***
*www.unicef.org/documents/community-iycf-package*

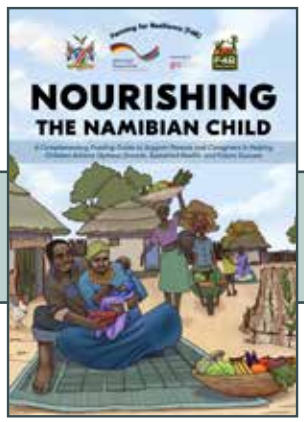
## INTRODUCTION TO COMPLEMENTARY/FIRST FOODS

| AGE | GROWTH STAGE | ADDITIONAL NUTRITIONAL NEEDS | FOODS TO OFFER |
|---|---|---|---|
| From birth to 6 months | Suckles<br>Root to nipple | Only breast milk | None |
| 5 - 7 months | Sit with support<br>Follows food with eyes<br>Begin to swallow thickened food (puree/ porridge) | - | Iron-fortified infant cereal:<br>Mahangu, maize, oats, rice<br>(feed baby with spoon) |
| 6-8 months | Moves hand to mouth<br>Moves tongue to side<br>Controls position of food in the mouth<br>Controls swallow<br>Up and down chew | Vitamins A + C | Strained or mashed vegetables and fruits, first infant juice (diluted with water!)<br>+ Start teaching baby to drink from a cup, yet be prepared for 'spills' |
| 7-10 months | Bites, chews<br>Moves food from side to side in mouth<br>Forms lips to cup<br>Grasp develops | B vitamins<br>Variety in diet<br>(Allow baby to feed self with hands) | Finger foods, such as dry cereal, cooked veggies, soft fruit wedges or other fruit pieces, bread or crackers<br>No biltong/droëwors = too salty |
| 8-12 months | Sociable<br>Greater interest in food<br>Drinking from cup improves<br>Thumb and fingers grasp develop | Trace elements<br>Gradually reduce the number of feedings from breast or bottle as baby eats more and more solid foods | Grounded or finely chopped food from family meal<br>Egg yolk (Whole egg only at one year)<br>*(Allow baby to feed self with spoon)* |

**THINGS TO AVOID:**

- ✓ Avoid sugary, salty and spicy food (= ideally no added sugar before 2 years of age!)
- ✓ Do not introduce too many foods at once, but only one at a time.
- ✓ Do not force the child to eat – The common saying of 'You must finish your plate!' is completely outdated and potentially harmful, as it teaches the child to override its own natural boundaries and ability to measure appropriate food intake.
- ✓ Avoid any distractions during meal-times, i.e., do not feed them while they watch cartoons or play games, because this increases chances of screen-time addictions and limits children's ability to listen to their body as to when they are hungry or full.

**Download practical guide:**
**https://cloud.nafsan.org/ChildNutrition.pdf**



### THINGS TO AVOID BEFORE ONE (1) YEAR OF AGE:

- ✓ Honey and animal milk (cow, goat, etc) only after ± 12 months is the digestive system developed enough.
- ✓ Caffeine, which is contained in coffee or black tea (such as Five Roses)
- ✓ Any food that needs to be chewed or could otherwise put infants at risk of choking (and dying!), such as any type of nuts or whole grapes.

### HOW TO DO IT ? TIPS DURING COMPLEMENTARY FEEDING:

- ✓ Feed baby from their own plates or food bowls.
- ✓ Properly wash the child's and your hands and the utensils before touching food.
- ✓ Ensure that you introduce one food at a time to observe allergies.
- ✓ Ensure to start with iron-fortified rich cereals, as well as plant-based and animal-based foods (see Slide 1.8.C on p.13). Eggs should be hard boiled or cooked, and a boiled yoke can be mashed and mixed with breastmilk or other food.
- ✓ Ensure the consistency is not too thick: advisably falling easily off the spoon.
- ✓ Always test the temperature of the food before feeding it to the child, so you make sure it is not too hot or too cold.
- ✓ Start off slowly, with only 2-3 teaspoons per meal.
- ✓ Children's stomachs are still small, so they need small frequent meals but as they get older increase the amount of food while continuing to breastfeed. Offer the food first and then the breast.
- ✓ Try to give food from all food groups and not only starchy foods.
- ✓ Add small amounts of fats and oils such as peanut butter or butter to meals because it provides a bit of extra energy to the child.
- ✓ Try mixing new foods with certain foods your child likes such as breast-milk to encourage eating.
- ✓ Pay attention to the child, feeding them patiently and slowly with love and care.
- ✓ If the baby refuses/spits out a new type of food, leave it for a few days and try again.
- ✓ When introducing solid food, start giving them water as well.
- ✓ Only give children boiled (after it has cooled down, of course!) or treated water to drink after meals, avoid tap water.
- ✓ Give finger foods from 8 months such as sliced fruits or sliced bread as snacks.
- ✓ Make sure to always wash all fruits and vegetables with clean safe water before giving it to the child.

### DURING ILLNESS – WHEN BABY IS SICK:

- ✓ Breastfeed the baby more frequently while providing small frequent meals.
- ✓ Infants need more fluids, for instance to avoid dehydration, e.g. when having fever.
- ✓ They might not have much appetite during the time they are sick, but they need nutrient-dense foods for recovery, such as enriched porridge/fruits and vegetables.

# CHILD NUTRITION

Child nutrition is the provision of the necessary nutrients that are required for children to grow and develop properly. This includes macro-nutrients such as cereal and cereal products (staple foods), proteins, and fats, as well as micro-nutrients (vitamins and minerals).

## IMPORTANCE OF HEALTHY EATING FOR CHILDREN:

- **Grow and develop properly:** Adequate nutrition is essential for children's physical and mental development. Children who eat a healthy diet are more likely to have a healthy weight, strong muscles and bones, and good overall health.
- **Build a strong immune system:** A healthy diet can help children to build a strong immune system, which can help them to fight off infections and diseases.
- **Improve cognitive function:** Some studies have shown that children who eat a healthy diet may have better cognitive function, including improved memory, concentration, and problem-solving skills.
- **Reduce risk of chronic diseases:** Eating a healthy diet can help children to reduce their risk of developing such diseases later in life, e.g. obesity, type 2 Diabetes, and heart disease.
- **Maintain a healthy weight:** A healthy diet can help children to maintain a healthy weight, which is important for their overall health and well-being.

## GOOD HYGIENE HABITS FROM AN EARLY AGE:

| | |
|---|---|
| **Washing hands:** | Teach children to wash their hands regularly, especially before eating, after using the bathroom, and after playing outside. |
| **Brushing teeth:** | Teach children to brush their teeth twice a day, using a toothbrush and toothpaste, or traditional methods, such as certain roots. |
| **Bathing:** | Give children a bath or shower regularly to keep their skin clean and healthy. |
| **Washing hair:** | Teach children to wash their hair regularly to keep it clean and healthy. |
| **Keeping nails trimmed:** | Teach children to keep their nails trimmed and clean to prevent the buildup of dirt and bacteria under the nails. It also helps avoid injuries of themselves (when nails break off) or others (e.g. while playing). |
| **Washing clothes:** | Teach children to wash their own clothes regularly (from a certain age of course!) so they learn to keep them clean, fresh, and hygienic. |


**Bad hygienic practices and lack of access to safe water and proper sanitation leads to illnesses (such as diarrhea, worms etc.), and these are some indirect but major causes of under-nutrition around the world and also in Namibia.**

**Responsive care and early learning through play also contribute a lot to healthy brain development, and it builds strong and positive parent-child relationships, which help with social and emotional development and make children feel safe, secure and valued.**

**Talking with babies and children during play (ideally in your mother tongue) exposes them to new words and helps them develop good language and communication skills.**

**Play allows children to explore, enables them to experiment with new ideas, and teaches them how to solve problems and how to share and to play and work together.**

# THE FOOD WE GROW

This section emphasizes the connection between what we grow and what we eat. It's about how agriculture (= how we produce food), can influence the nutritional value of the foods we eat, and how the foods we eat can influence the agricultural methods that produce them.

## HOW TO IMPROVE NUTRITION THROUGH AGRICULTURE

Improving nutrition through agriculture requires a holistic/multidimensional approach that addresses the different causes of malnutrition, such as poverty, a lack of access to diverse foods, and poor farming methods. The nutritional status of an individual can be improved by increased **availability and access** to nutritious and safe food. This can be achieved through gardening and effective food value chains amongst others.

***Here are some ways on how to improve nutrition through agriculture:***

- ✓ **Food fortification**

  Farmers can produce fortified crops that contain essential vitamins and minerals. This is an effective method for increasing the nutritional value of foods, especially for people with limited access to various foods.

- ✓ **Crop diversification**

  Agriculture can contribute to improved nutrition through crop diversification by promoting the production and consumption of a variety of nutrient-dense foods. Farmers can also encourage the use of diverse food crops such as pulses and grains.

- ✓ **Bio-fortification**

  This is a process of increasing the nutrient content of crops through plant breeding or agronomic practices. The nutritional status of populations who rely on staple crops for their diets can be improved through bio-fortification.

- ✓ **Sustainable Agriculture**

  Farming in a sustainable manner can improve the nutritional value of foods by preserving soil health and biodiversity. As a result, the crops' quality is improved, thus increasing the nutrient value of the foods that are produced.

- ✓ **Micro-nutrient-enriched Fertilizers**

  Improving soil fertility, especially with ***organic fertilizers***, helps to ensure that the soil has all the necessary nutrients it needs to produce food products of quality, minimising on micro-nutrient deficiency that may also be caused by poor soil quality.

**Organic farming** refers to an agricultural system or agricultural practices that use fertilizers of organic origin such as compost manure, green manure and bone meal. It places emphasis on techniques such as crop rotation and companion planting. Key advantages of organic farming are the increase in soil fertility in the medium- and long-term, and by discouraging chemicals it contributes towards the preservation of the natural environment, and it produces food that is non-contaminated.

For more information: **Namibian Organic Association**: *www.noa.org.na* + watch NOA's talk on: 'Organic Agriculture- Opportunities and Importance' - *www.nafsan.org/talks*

## BENEFITS OF GROWING YOUR OWN FOOD:

- ✓ Growing your own food can be a cost-effective way to produce fresh fruits and vegetables. If you have a large family, this can help you save money on groceries.
- ✓ You control the kind of pesticides and fertilizers that reach your food, hence reducing the risk of food contamination and foodborne illness.

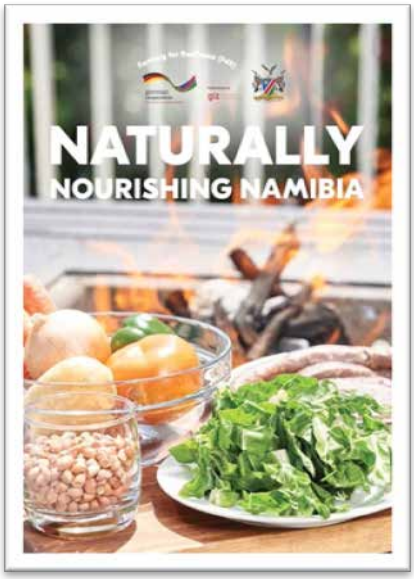
- ✓ Growing your own food can be a calming and relaxing activity that helps reduce stress and improves mental health. It can also be great fun and for children, while it teaches them about life itself, about where food comes from, and about taking responsibility.
- ✓ Home-grown fruits and vegetables are often fresher and more nutritious than store-bought produce, as they can be picked at peak ripeness and consumed immediately after harvesting.

## HOW TO MANAGE FOOD WASTE IN AGRICULTURE:

- ✓ **Compost Food Waste:** Food waste such as banana peels, old lettuce and any other organic waste can be used as compost to create a nutrient-rich soil amendment.
  - Composting Poster and Tips for more details: *www.nafsan.org/compost*
- ✓ **Value-addition:** Spoilt fruits and vegetables such as oranges, berries, apples, and tomatoes can be used to make value-added products such as juices, sauces, and jams.
- ✓ **Animal feeds:** leftover fruits and vegetables that are not suitable for human consumption can be used to feed animals.

## LET'S IMPROVE THE CONNECTION BETWEEN AGRICULTURE AND NUTRITION BY:

- ✓ Increasing production of fruits, vegetables, nutritious roots, cereals and pulses to improve the consumption of a diversified diet at household level.
- ✓ Initiating homestead gardening and community horticulture production projects.
- ✓ Promoting consumption of diversified foods through agricultural programmes e.g. ***"Naturally Nourishing Namibia"*** cookbook at community level




*https://cloud.nafsan.org/F4R-Cookbook.pdf*

# FOOD SAFETY AND PREPARATION

Food safety refers to the procedures followed when handling, processing, and distributing food to make sure that there are no contaminants present that could result in foodborne illnesses. Food safety is a public health priority because millions of people become ill and die each year as a result of consuming contaminated food.

Food safety is important as it helps to protect consumers from the risk of food-borne illnesses. It also helps to prevent consumers from risks of health–related conditions such as allergies and even death.

## SAFETY GUIDELINES (5 KEYS)

### 1) *SEPARATE RAW AND COOKED FOOD*

- ✓ Do not mix raw food and ready-to-eat food.
- ✓ Do not mix raw meat or fish with raw vegetables.
- ✓ Keep cooked and raw foods apart when preparing or storing them. This helps to prevent germs from moving from one to the other, and use separate chopping boards and utensils where possible.

### 2) *KEEP CLEAN*

- ✓ Wash raw vegetables and fruits well with water before eating, cutting, or cooking.
- ✓ Always keep your hands, the kitchen, and the cutting board clean.
- ✓ Wash hands with soap and clean water after going to the toilet, changing babies' nappies, and working with animals, and before working with food and eating.
- ✓ Wash cooking equipment with soap and clean water before and after use and when preparing different foods using the same equipment.

### 3) *COOK THOROUGHLY*

- ✓ All meat, poultry, and seafood should be well cooked, especially shellfish.
- ✓ Cook or reheat all leftover food properly, until they are steaming hot.
- ✓ Yet, avoid overcooking, because this can destroy nutrients and avoid cooking food in too much water because nutrients get lost when they go into the water.

### 4) *USE SAFE WATER AND RAW MATERIALS*

- ✓ Use safe drinking water for food preparation.
- ✓ When buying packaged foods, always read the labels and use-by dates. Use leftovers within 3 to 4 days.

### 5) *KEEP FOOD AT SAFE TEMPERATURES*

- ✓ Refrigerate cooked food within 2 hours of preparation. The refrigerator should be 4°C or lower and the freezer at -18° C or lower.
- ✓ Rather do not defrost food at room temperature; instead, use the refrigerator, or cold running water to defrost frozen foods, or unfreeze it as part of your cooking.

## SIMPLE WAYS ON HOW TO MAKE WATER SAFE

### BOILING

- ☑ Boiling water is the simplest and most cost-effective method of water purification.
- ☑ Boil the water for at least 1 minute to effectively kill harmful bacteria and parasites.

### FILTERING

- ☑ Filtering water through a clean cloth, paper towel, coffee filter or allowing it to settle, then drawing off the clear water can remove harmful bacteria, parasites, and other contaminants from water.

### ACTIVATED CHARCOAL

- ☑ Activated charcoal cleanses water by adsorbing contaminants on its surface.
- ☑ First boil the charcoal in water for 10minutes before use, then fill your bottle with drinking tap water and wait for the charcoal to filter impurities from the water. Leaving it overnight is ideal, but you will taste the difference after just one hour.

## FOOD PRESERVATION AND STORAGE

Food preservation is the process of treating and handling food to slow down spoilage and prevent foodborne illness while maintaining nutritional value, texture, and flavour.

### TRADITIONAL METHODS

This refers to methods used in the olden days to keep food for a long period of time. Among the oldest methods of preservation are drying, smoking, salting, sugaring and fermentation.

**Drying** Dehydrating food, often using dry heat, such as the sun and warm winds

Examples: meat (biltong, eedingu), fish, mopane worms, fruits, vegetables, herbs

**Smoking** Smoke from burning wood creates a barrier on the surface of the food that prevents oxygen and bacteria from getting in, plus the heat from the smoke kills any microbes, and the smoke has chemicals in it which act as preservatives.

Examples: smoked ham, ribs, fish, chicken, cheese + tenderizes meat and adds flavour!

**Salting** This method involves adding a high amount of salt to food, which can help to preserve it by drawing out moisture and killing bacteria. . --> Salting is linked to pickling and fermenting.

Examples: fish (salted cod, herring, or caviar), meat (bacon or game/venison)

**Fermenting** This method involves the use of bacteria and yeast to convert sugars in food into alcohol or acids.

Examples: cheese, yogurt, pickles, sauerkraut, bread (sourdough / yeast), salami, miso, vinegar, wine, beer, oshikundu, omalovu, kombucha

**Sugaring** First dehydrating the food and then covering it with sugar or sometimes honey.

Examples: fruit preserves, jams, and jellies, corned beef, bacon, salt pork, ham.

### MODERN METHODS

Modern food preservation refers to the use of advanced techniques and technologies to extend the shelf life of food and keep it fresh.

**Canning/Bottling** Sealing food or drinks in sterile and airtight containers, such as fruits, meat, vegetables, fish, but also beer, juices etc.

**Sterilisation** Complete elimination of organisms, such as yeasts, molds, vegetative bacteria, through heat or non-hear processes. The process involves putting food in glass bottles or cans, sealing and placing in boiling water for approx. 20-40 minutes between 110 - 120 oC.

**Pasteurisation** Heat-treatment process (below 100 °C) of packaged and non-packaged food that destroys pathogenic microorganisms in certain foods and beverages, as milk, fruits, nuts, vinegar, wine, beer etc.

| | |
|---|---|
| **Freezing** | Possible when having a deep freezer with temperatures below - 17 °C and food should be frozen immediately after packaging, be well closed off in durable and leak-proof containers. Be aware: volume expands when items are frozen!<br>Freezing is applicable for raw and already cooked/prepared food. There is also the latest technology, yet still expensive: Freeze-drying |
| **Vacuum sealing** | Removing the air from a container can help to preserve food by slowing down the growth of bacteria. This often involves using vacuum sealers and plastic bags. It preserves, moisture, oil, and flavour and can be applied to all kinds of food. |
| **Chemicals** | Adding 'preservatives' to food (e.g. additives, preservatives, colourants), mostly: Benzoates (e.g. sodium benzoate) Nitrites (e.g. sodium nitrite), and Sulphites (e.g. sulfur dioxide). These can be artificial and sometimes even harmful, so it is good to know what is in our food and to also advocate for compulsory food labeling in Namibia. |
| **Irradiation** | This method involves exposing food to a controlled dose of ionising radiation, which can kill bacteria and other microorganisms that cause spoilage. Exemplary food that can be irradiated: beef, pork, poultry, fresh fruits and vegetables, lettuce, spinach, spices, seasoning, etc.<br>+ There may be special labeling requirements for irradiated food! |

## FOOD STORAGE TIPS

Proper food storage is important to help extend the shelf life of food and keep it fresh.

Here are a few tips for storing food:

**Classify foods into different categories** (with examples) may be helpful:

- **Perishable foods** – likely to spoil or become unsafe for consumption within a short amount of time, if not kept refrigerated or frozen, such as meat, poultry, fish, raw fruits/vegetables, dairy products, all cooked leftovers.
- **Semi-perishable foods** – take longer to spoil than perishable foods, often do not need refrigeration, yet cooling helps. Examples are onions, flour, nuts, and potatoes.
- **Non-perishable foods** – long shelf life and can last for an extended period without spoiling. Don't require refrigeration, such as canned food (e.g. meat, fish, vegetables, fruits), peanut butter, dried fruits, cereal, pasta, rice, tea, and coffee.

### GENERAL RECOMMENDATIONS:

1. Keep perishable foods, such as meat, poultry, and dairy products, in the refrigerator.
2. Store dry goods (grains, flours, and cereals) in airtight containers in a cool, dry place.
3. Store fruits and vegetables in the refrigerator or in a cool, dry place, depending on the type of produce.
4. Avoid storing food in direct sunlight or near heat sources, as these can accelerate food spoilage.
5. Follow the "first in, first out" principle by using older items first and rotating stock to ensure that older items are used before they expire.
6. Label and date all stored food to help keep track of expiration dates.
7. Wash hands, utensils, and surfaces thoroughly before handling and preparing food to prevent contamination.
8. Follow recommended storage times for specific foods to help ensure that they are stored properly and do not spoil.

### + IF YOU HAVE A FRIDGE:

- Check temperature, which should be below 4° C degree (freezer = below -17°C)
- Dairy products rather be put in the back of fridge, where it is colder.
- Herbs to be treated like flowers, cut and in water (or dried)
- Keep food covered and check expiration dates

# 5. ADDITIONAL FACILITATION TIPS

## PREPARATIONS

### OBJECTIVES AND EXPECTATIONS

Be conscious and clear about your own objectives and expectations, and also get a sense of the needs and expectations from those you will have your sessions with. What do they already know? What would be most helpful for them to discuss, to learn, to plan or take action on?

### TRAINING CONTENT

Familiarise yourself thoroughly with the **training content** for your session, so that you can easily answer any upcoming questions by heart, or at least that you will know where to find possible answers in cases where you do not know the answer.

### INSTRUCTIONS FOR EXERCISES

Make sure you precisely know the **instructions for exercises** you will be using. We strongly recommend that you should have experienced each exercise that you are facilitating at least once from the perspective of a participant, if possible.

### LANGUAGE AND DRESS CODE

Find out if **language** could be an issue, e.g. if everyone speaks English or the vernacular local language you would like to hold the session in. Consider that some words are not easy to be translated, so prepare well and in advance. Also ensure that your **dress code** fits the setting.

### VENUE

Ensure that the **venue is big enough** for everyone to **sit in a circle** or at least in a U-shape, as it helps with interactions and engagement when people are able to see one another. Depending on what level of interactions you want to have and the nature of the exercises you are planning to do, you might want to put any tables outside the circle of chairs or against the walls. In this way, people can interact much more freely, yet they are still able to put their personal belongings (and possibly glasses/bottles of water) on them.

### LOGISTICS

Confirm with the group that everyone knows where the toilet facilities are, and also make announcements regarding refreshments and any other logistical arrangements, as applicable.

### STATIONERY

Have all the **copies/printouts, A3-slides, flipchart paper and pens** or whatever else you might need **ready in advance**, including possible breakaway spaces for small group work.

### CATERING

**Liaise with the caterers in advance** and discuss in advance what drinks and food will be served during tea and lunch breaks. Insist on **healthy food options**, which may be new for some catering service providers, and you might have to help them come up with healthy options.

### WALK THE TALK

It's important that you **"walk the talk"** during this nutrition training. We should avoid saying one thing but doing (eating) the exact opposite. However, should all your efforts fail, and the catering provide the rather typical unhealthy options, use this as an example to reflect on how most times the food we're used to eat is not as healthy as it could be.


The more you prepare in advance, the less stressed you will be during the sessions.

## HOW TO DIVIDE PARTICIPANTS INTO SMALL GROUPS?

*Count the total number of people, divide by the number you need to be in each group. This gives you the number of small groups necessary and this is also the number for counting off participants: 1, 2, 3, 4, 5,... and then have all '1's, all '2's etc. go together.*

*As alternative, instead of the numbers, you can use vegetable and fruits:*

*Apples (1), Bananas (2), Carrots (3), Dates (4), Eembe 'Bird Plum' (5), Fennel (6), Guava (7) etc.*

# KEY FACILITATION SKILLS

Here some useful tips for being a **good facilitator** during your sessions. These are meant for you to try out and experiment with. Please keep on practicing those skills, while reflecting on yourself through self-observations and honest feedback from others.

## GROUP DYNAMICS

Be well aware of and pay attention to the group dynamics. Where is the attention of the group? How is your own and the group's energy level? Are participants motivated, concentrated, and participating? People become bored easily if you speak or present for long periods of time.

You can stimulate participation by asking questions, or you may suggest an energiser or a quick stretch break if you see many participants fidgeting or about to fall asleep. On the other hand, a group that is full of energy may want to delay a schedule break for a little while.

When group dynamics are not considered enough, individual energy and group moral will drop.

## DISCUSSIONS

Make sure discussions stay relevant: Point out to the group when discussions are drifting off the topic or becoming trivial. Cut off discussions when people become weary and try to deepen discussions when repetition occurs.

## TIMEKEEPING

Keep track of time and the schedule for the session: When quite some time was spent for discussing a specific topic, remind the group that there is only a certain time left for another interesting (possibly related) topic or exercise.

## CONTRIBUTIONS

Use affirmation and appreciation, as this helps create and maintain an atmosphere in which participants feel comfortable and take each other seriously. Summarising or paraphrasing people's contributions is often helpful, especially in rather tensed discussions. Remember to value everyone's contributions, even and especially when someone disagrees.

## SHARING

Help to make it safe for people to share their views and encourage them to express the feelings behind their views. Sharing feelings and personal experiences behind those emotions shows the diversity of experiences within the group and is often helpful to move from arguments towards mutual understanding. Compassionately listening to people's experiences that has led to them hold certain opinions, helps us understand 'where they are coming from' without having to agree on everything. This helps you encourage the expression of various viewpoints more deeply.

Hereby ask people to speak for and about themselves and to be specific. Do not allow participants to speculate about what others might think or feel: like, *"Some people seem to feel..."* or *"What s/he is trying to say is..."*.

## DIFFICULT PARTICIPANTS

'Dealing with difficult participants': Help and encourage everyone to participate – Do not let just 2 or 3 people monopolize the discussion. Deliberately ask for comment from others. Gender-based dynamics often play an unconscious and rather unnoticed role, i.e. men often tend to speak more than women. It is your role as facilitator to level the playing field and get everybody to participate, hereby having all voices heard.
Note that some people might need to be asked to not speak for too long, or less frequently. Appreciate their high motivation to participate, while making them aware that others might also have valuable contributions that the group would benefit from hearing.

## WALK YOUR TALK

Try as much as possible to practice what you preach, meaning: 'walk your talk'!

Learning to deal with conflict and gender-related issues is an on-going learning process. Reflect and work on your own ways of dealing with any kind of tensions, conflict or gender issues yourself. Notice your own gender-blindness or gender-bias. If possible, be transparent about this with the group, so that your own learning and growth can even become useful to them.

Remember you are a role-model, during and also outside the sessions, and people see what you do and tend to hear more of *how* you say things than *what* you say. Therefore, showing them how you **learn from your own mistakes** and become step-by-step more gender-aware can be a great learning for everyone. Nobody is perfect!

## THE POWER AND ART OF REFLECTIONS

How to facilitate and guide the group through the various exercises is explained in detail in Chapter 4 of this manual. This section here is about how you can generally deepen people's learning experiences and make them more real and applicable through facilitated reflections.

Evaluation and reflection are critical and essential parts of every exercise. It provides a safe and productive environment to reflect on what happened within oneself and within the group by sharing experiences, expressing feelings, highlighting problems and asking additional questions which came up during an exercise. It should also provide room for mentioning possible procedural flaws, inappropriate behaviour, logistical difficulties etc.

The art of facilitated reflections is to guide the participants through this process by asking open yet specific questions with a curious and genuinely interested attitude.

This process is also about enabling participants to understand what this exercise was about, what their individual and collective learning steps have been, and to create a good transition into the next session. Even though an exercise itself might not have worked as smooth as expected, a good reflection afterwards can bring a lot of unexpected insights and extremely valuable outcomes for both the group and the facilitator. It is hereby important that people listen to each other, raise honest questions and have fruitful discussions.

### RECOMMENDATIONS FOR REFLECTIONS

- ☑ Encourage everyone who participated in the exercise to also take part in the reflections.
- ☑ Notice the atmosphere and ask how participants feel after the exercise.
- ☑ Ask participants what worked well and what did not work. Expect differing opinions.
- ☑ Focus more on people's personal experiences, insight and learning/growth process rather than on the pure outcome of an exercise.
- ☑ It is generally not useful to repeat other participants' comments, So, maybe mention this in the beginning and invite people to rather add on to what has already been said.
- ☑ Be aware of what kinds of questions you are using. Try to not use 'closed questions' which can only give you a Yes/No or other kind of one-worded answer. Rather ask 'open-ended questions' instead, such as: "What did you find easy or difficult?".
- ☑ Ensure everybody speaks only for themselves and doesn't attempt representing anyone else, for instance when people say: "What he/she is trying to say is…" – highlight that we do not know what someone else may be trying to say. What people should rather say then instead is: "What I hear him/her saying is…"
- ☑ Pay attention to non-verbal signals, like body language, blank facial expressions or silences that may either indicate lack of interest or ongoing processing of deeper experiences. Are participants asking questions? Is everyone involved? If not, try to get them involved. Alternatively, move on to the next exercise or consider taking a break.
- ☑ Ask yourself how open you yourself are to criticism? Are you receiving any, and if so, are you genuinely listening, understanding and acknowledging it? Criticisms are great opportunities for learning and growth! If you don't receive any criticisms, ask yourself: "Would people be free enough to tell me?"

## RESPONDING TO QUESTIONS


Having a group asking critical questions is a brilliant indicator for people being interested and engaged. On the other hand, it can put you as facilitator under pressure, especially if you are not a nutritionist or not that experienced with standing in front of a group. In this case it may be best to respond to one question at a time.

While a person is asking a question, maintain eye contact with that person, but as you give your answer, try also to look at the entire audience, so that no one feels left out.

If the question might not have been heard by everyone – especially with large groups – repeat (in a summary) the question. This also gives you some more time to think about an answer and ensures that you have understood the question correctly.

## ANSWERING DIFFICULT QUESTIONS

Difficult questions are those that you find really challenging, if not impossible to answer. Such questions make almost every facilitator feel nervous, although it is probably not the person's intention to make you feel this way. This person may merely be very interested and really wants to get to the bottom of things. Still, you find yourself in a pretty tight spot.

When asked a difficult question, you may feel horrible and might be tempted to refuse to answer that question, by saying: *"Answering this would take us away from our topic."*

However, people would notice that something is not right, and will most likely feel manipulated. We rather recommend you try the following:

### 1) Acknowledge the Question

Respond immediately by acknowledging the value of the question and the person who is asking it. This will also buy you some time to think about possible answers. Even seconds can make a difference in such a moment, and it's better to say something than being just silent.

An acknowledging statement could sound like this:

- ✓ *Wow, that's a good question!*
- ✓ *I was actually hoping someone would bring this up.*
- ✓ *I did not expect anyone asking such interesting question.*
- ✓ *It's great to see some people really thinking deeply about this.*

…and you can then proceed to actually answering the question, e.g. as follows:

### 2) Respond Honestly

Here are several possible options on how to respond:

***"I don't know."*** – Very honest and disarming. Yet, it should only be used once, so keep it as a backup and definitely follow it up by: ***".. I will find out and will let you know."*** Make sure though you don't only say so, but really do this!

***"Let me try to rephrase this question..."*** – Rephrasing gives you some more time to think about an answer, and it also allows you to maybe simplify the question so that it's easier for you to answer it. Just be careful that this could potentially be perceived as a way of manipulating or evading the original question.

***"How would you answer that for yourself"*** – *Even though you might think this is just a cheap trick to evade answering the question (which it indeed could be), it's a really helpful way to explore possible answers. Most people who ask truly challenging questions have already spent quite some time for themselves thinking about an answer, and it would be valuable to hear their thoughts on it. This then in turn might also give you some ideas on how to respond to it more eloquently.*

We would also have smarter and more self-confident children if we as parents and teachers actually respond to many of our children's questions in such a way. Be ensured that if a child asks you a difficult question, they usually have many possible answers already in their heads before they ask this question. Children are naturally very creative and innovative, and by listening to their own possible answers we nurture their creative thinking capacities.

***"I think we need our collective wisdom for this one. Anybody has an idea on how one could possibly answer this question?"*** – Again, this opens up for many different responses, without directly showing that you do not know the answer (yet). It rather acknowledges the deep nature of the question, and it shows that you don't see yourself as the only source of wisdom in the room. Considering the various challenges around nutrition, everyone's contributions are needed to improve the situation.

***"I think this is a question that points out what could not be captured in this session, but it shows us the way for what needs to be included in our next session or a possible follow-up workshop. Thank you!"*** – You are honestly saying *"I don't know"* without actually saying it. Probably your audience won't even notice that you don't know, because you focus on the questioner's contribution and how we all can benefit from such an interesting question. Furthermore, if you really 'walk the talk' and actually include this issue in the next session, it adds real value to future sessions.

## ADDITIONAL RECOMMENDATIONS

If someone questions your facts in a way that seems fairly reasonable, don't start arguing or becoming defensive. If that person's point or criticism seems to be valid, say so and admit it. For instance, say: ***"That is a valuable point. I will be more aware of that. Thank you."***

- ✓ Make sure that not only the same few people are asking all the questions or comments, but that as many people as possible bring up the questions they might have.
- ✓ Decline to answer questions that are not appropriate (too detailed or too personal) to be discussed in front of everybody. Briefly explain your reasons for not answering the question and indicate a possibility of when this person's question could be answered, like maybe afterwards in a one-on-one discussion.
- ✓ Don't let the questions-and-answers (Q&A) part of your session drag on for too long. You could indicate at this point that you will only be able to respond to 2-3 more questions before going into the next activity or into having a break.
- ✓ Lastly, keep in mind (= let it inform your inner attitude!) that any question or comment is in fact a contribution, even if it may not appear to be one at first sight!

# 6. WORKSHEETS FOR EXERCISES

## WORKSHEET 1 - SUGAR AND ME (EXERCISE 2): RATING SCALE

**These 'Ballot Papers' are to be cut out and handed out, so each participant has one.**

| BOTTLE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| TEASPOONS OF SUGAR | | | | | | |

| BOTTLE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| TEASPOONS OF SUGAR | | | | | | |

| BOTTLE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| TEASPOONS OF SUGAR | | | | | | |

| BOTTLE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| TEASPOONS OF SUGAR | | | | | | |

# FOOD GROUPS - CHEAT LIST FOR FACILITATORS

| Protein | Staples/ Cereals | Fats & Oils | Fruits & Vegetables |
|---|---|---|---|
|  |  |   |  |
| Almonds | All Bran (= wheat) | !Nara Oil | African Horned Melon / *'Omashonywa'* |
| Bambara Ground Nuts *'eefukwa'* | Bread, white or brown | Avocados *(= fruit, high in fats)* | Apples |
| Beans, baked | Bread Rolls / *'Brötchen'* | Beef Fat | Avocadoes *(+ high in 'good' fats)* |
| Beans, green *(= vegetable high in protein)* | Cassava/Manioc *(= a starchy vegetable)* | Black Seed Oil | Bananas |
| Beef Liver | Chickpeas *(+ good source of protein)* | Butter / *'Omadi Megombe'* | Beans, green *(+ good source of protein)* |
| Biltong | Coco-Pops (wheat/maize) | Canola Oil | Beetroot |
| Cashew Nuts | Corn Flakes | *Cheese (+ a protein source)* | Bell Peppers: green/yellow/red |
| Cheese *(+ contains saturated fats)* | Crackers | Chicken Skin | Broccoli |
| Chicken Breast | Fat cakes *(+ contain lots of trans-fats)* | Coconut Oil | Butternut |
| Chicken Feet | French Fries *(= potatoes) 'Warm Chips'* | Fat Cakes *(= lots of trans-fats)* | Cabbage |
| Chicken Gizzards | Instant Porridge (= maize) | Fat Spread (Margarine) | Carrots |
| Chicken, grilled/baked | Mahangu Pap / *'Oshifima'* | Fish Oil | Cauliflower |
| *Chickpeas (= staple, high in protein)* | Maize Flour | Marula Oil / *'Ondjove'* | Cucumber |
| Cow peas / *'Omakunde'* | Muffins | Mayonnaise | Dates |
| Edible Insects / *'Ishiwa'* | Noodles, instant | Olive Oil | Dwarf Jackalberry / *'Mukushuwa'* |
| Eggs, boiled, fried etc. | Oats (= wheat) | Peanut Butter *(+ good protein source)* | 'Eembe' (Bird Plum) |
| Fish, canned, baked, dried, fried etc. | Omahangu Bread / *'Oshikwiila' / 'Ongome'* | Salad Dressing | Jackalberry / *'Eenyandi'* |
| Frog (= bullfrog) / *'Omafuma'* | Pasta (= wheat) Macaroni, Spaghetti etc. | Shea Butter | Eggplants |
| Milk, fresh or UHT | Pearl Millet / *'Mahangu'* | Sunflower Oil | Garlic |
| Liver, chicken, beef etc. | *Peas (+ starchy vegetable with high protein content)* | Avocados *(= fruit, high in fats)* | Grapefruit |

| | | | |
|---|---|---|---|
| Lentils | Popcorn (= maize) | | Grapes |
| Marama Beans | Potatoes | | Grewia, Berry / *'Mumaka'* |
| Meat, fresh = Game, Beef, Sheep, Donkey etc. | Potato Chips, flavoured |   | Kiwi |
| Meat, dried / *'Eedingu'* | Rice | | Kalahari Truffles |
| Meat, processed = in Salami, Mixed Polony etc. | Rice Crispies | | Lettuce |
| Mopane Worms | Samp (= corn) | | Mangoes |
| *Peanut Butter (= fat, yet high in protein)* | Sweet Corn | | Marula |
| *Peas (= starchy vegetable with high protein content)* | Sweet Potatoes *(= a starchy vegetable)* | | Monkey Orange / *'Omauni'* |
| Redskin Peanuts / *'Eembudukufwa'* | Wheat Biscuits | | Manketti Fruit / *'Mongongo'* |
| Tripe / *'Matangara'* | | | Mushrooms (= actually a fungi) |
| Walnuts (= fruit, with high protein) |  |  | Onions |
| Yoghurt | | | Oranges (= aka Naartjies, Mandarines, or Clementines) |
| | | | Passion Fruit |
| | | | Pawpaw |
|  | | | *Peas (high in starch & protein)* |
| |  | | Peaches |
| | | | Pears |
| | | | Plums |
| | | | Prickly Pears |
|  | | | Spinach (cultivated or wild) *'Mutete, Ombidi, Evanda'* |
| | | | Strawberries |
| | | | Tomatoes |
| | | | Watermelons |
| | | |  |

You can download the complete food item images at: *www.nafsan.org/n4h*

## WORKSHEET 2 – NUTRITION CHALLENGES (EXERCISE 4)

**In groups of 3-4, ask each other, listen, and discuss:**

1) ***The most valuable thing I learned today was …***

2) ***I personally find it really challenging to follow a balanced diet, because …***

3) ***I find it difficult to provide a balances diet for my children/family, because …***

4) ***What would help me and others to eat (and drink) much healthier, is …***

## WORKSHEET 3 – MATERNAL NUTRITION (EXERCISE 5)

**Each small group should discuss the following questions in ± 10min:**

1) ***What should pregnant women consume that benefits their maternal health?***

2) ***What should pregnant women not consume during pregnancy and breastfeeding?***

3) ***How can others, such as men (fathers), do to support the mother-to-be?***

1) ***What should pregnant women consume that benefits their maternal health?***

2) ***What should pregnant women not consume during pregnancy and breastfeeding?***

3) ***How can others, such as men (fathers), do to support the mother-to-be?***

## WORKSHEET 4 – BREASTFEEDING AND FIRST FOODS (EXERCISE 6)

**Ask people to then ask each other the following 3 questions for ±10min:**

1) ***What do you know about breastfeeding, its benefits and recommended length?***

2) ***What additional benefits does breastfeeding have for mothers?***

3) ***What are the first solid foods we should start giving our children?***

1) ***What do you know about breastfeeding, its benefits and recommended length?***

2) ***What additional benefits does breastfeeding have for mothers?***

3) ***What are the first solid foods we should start giving our children?***

## WORKSHEET 5 – FOOD CONSERVATION METHODS (EXERCISE 8)

**Ask people to get together in groups of 3 ask each other the following, for ± 10min:**

1) ***What traditional ways do you know from your culture/tradition or from your elders/parents how certain types of food can be made to last longer?***

   ***Share what types of food it is and what exactly is being done to it.***

_____

_____

_____

2) ***Have you heard of any other Namibian cultures/traditions and their ways of preserving certain foods? If so, which foods and how?***

_____

_____

_____

3) ***Are you aware of any other more modern ways of conserving/preserving food?***

_____

_____

_____

1) ***What traditional ways do you know from your culture/tradition or from your elders/parents how certain types of food can be made to last longer?***

   ***Share what types of food it is and what exactly is being done to it.***

_____

_____

_____

2) ***)ave you heard of any other Namibian cultures/traditions and their ways of preserving certain foods? If so, which foods and how?***

_____

_____

_____

3) ***Are you aware of any other more modern ways of conserving/preserving food?***

_____

_____

_____

## WORKSHEET 6 – CHALLENGES, OPPORTUNITIES & WAYS FORWARD (EXERCISE 9)

**1)** ***What was the most interesting and important thing I have learned in this workshop?***

_____

_____

_____

_____

**2)** ***What challenges with regard to nutrition do I personally still face as of now, and what challenges are people in my community (or people otherwise close to me) still facing?***

> ***Think also of the challenges identified yesterday, at the end of the first day.***

_____

_____

_____

_____

**3)** ***Do I see any opportunities now through this workshop and what has been shared?***

_____

_____

_____

_____

**4)** What are very concrete and **practical ways forward** for me now? What should be done, what can I do and what will I do personally and/or in your family/community?

*This last question is a personal commitment by individuals to take action on any level: personal, within their own family, at work, in the community, or in the nation at large.*

_____

_____

_____

_____

# WORKSHEET 7 – PARTICIPANTS' FEEDBACK AND FINAL WORKSHOP EVALUATION

**What I liked:** What was interesting, new, and/or important for me, and why?

**What I didn't like:** What was not so valuable for me or for the whole group, and why?

**Recommendations:** What should we be aware of or change for future nutrition trainings?

***Cut here*** *when receiving the filled in form back from participants and give the last part (My Personal Contribution) to each of them to take it home with, as a gentle and practical reminder of what they want to change in their lives.*

**My Personal Contribution:**

What can and will **I** (myself) change in terms nutrition, food, and healthy diets/lifestyle?

# 7. ABBREVIATIONS AND GLOSSARY

## WHAT DOES THIS STAND FOR?

| | | |
|---|---|---|
| AIDS | = | Acquired Immunodeficiency Syndrome |
| BMI | = | Body Mass Index |
| COHA | = | Cost of Hunger in Africa (Study) |
| ECD | = | Early Childhood Development |
| FAO | = | Food and Agriculture Organization |
| G/DL | = | Grams per Deciliter |
| GDP | = | Gross Domestic Product |
| GIZ-F4R | = | German International Development Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit) - Farming for Resilience project |
| HIV | = | Human Immunodeficiency Syndrome |
| IECD | = | Integrated Early Childhood Development |
| IQ | = | Intelligence Quotient |
| kJ | = | Kilojoule (= 0.239 calories) |
| MM | = | Moderate Malnutrition |
| MoHSS | = | Ministry of Health and Social Services |
| MSG | = | Monosodium Glutamate |
| MUAC | = | Mid-Upper Arm Circumference |
| NAFSAN | = | Nutrition and Food Security Alliance of Namibia |
| NDHS | = | Namibia Demographic and Health Survey |
| ORS | = | Oral Rehydration Solution |
| PEM | = | Protein-Energy Malnutrition |
| SAM | = | Severe Acute Malnutrition |
| SIDS | = | Sudden Infant Death Syndrome |
| SUN | = | Scaling Up Nutrition (a global movement, see: *www.scalingupnutrition.org*) |
| TB | = | Tuberculosis |
| TV | = | Television |
| UN | = | United Nations |
| UNICEF | = | United Nations Children's Fund |
| WHO | = | World Health Organization |

For updates and support visit: *www.nafsan.org/n4h - Nutrition for Health*

## GLOSSARY - KEY TERMS EXPLAINED

**Body Mass Index** - a measure of whether a person has a healthy weight based on their height.

**Breastfeeding** - the natural process of feeding a baby with milk from the mother's breasts.

**Complementary Feeding** - the process of feeding young children other foods and liquids, along with breastmilk - also referred to as "First Foods.

**Dehydration** - a condition that occurs when the body loses more fluids than it takes in.

**Double Burden of Malnutrition** - the coexistence of overnutrition (overweight and obesity) alongside undernutrition (stunting and wasting) at all levels of a population.

**Gross Domestic Product** - the total value of all goods and services produced within a country's borders over a specified period of time, usually a year.

**Healthy Food** - foods that contribute to healthy diets if consumed in appropriate amounts.

**Kwashiorkor** - a severe form of undernutrition characterized by a lack of protein.

**Malnutrition** - a condition resulting from nutrient deficiency or overconsumption of nutrients.

**Marasmus** - a severe form of undernutrition characterized by an overall lack of macronutrients (carbohydrates, proteins and fats).

**Micronutrient Deficiency** – also known as ***'Hidden Hunger',*** is a lack of essential vitamins and minerals needed by the body in small amounts for optimal growth and development.

**Mortality** – the number of deaths in a given population over a specific time period.

**Obesity** - a medical condition and complex disorder in which excess fat has accumulated to an extent that it may result in serious health conditions (= body mass index of 30+).

**Overweight** - having more body weight, through excess fat, than what is considered healthy for one's height (= body mass index between 25 and 29.9).

**Protein-Energy Malnutrition** - a form of malnutrition common in children that results from a lack of protein and energy consumption.

**Stunting** - a condition that results from an inadequate food intake over a long period of time.

**Supplementation** - a substance that is added to a person's diet, in order to maintain or improve health.

**Underweight** - when one's weight is lower than what is considered healthy, which can be a sign of undernutrition and serious health problems (= body mass index below 18.5).

**Unhealthy Food** - foods high in saturated fats, trans-fatty acids, free sugars, or salt

**Wasting** - a rapid loss of weight and muscle mass which results from a lack of adequate food intake over a short period of time.

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