



Training Manual

Pacific Guidelines for Healthy Living



Training Manual: Pacific Guidelines for Healthy Living

Non-Communicable Diseases Team, Public Health Division: Pacific Community

August 2020



Suva, Fiji, 2020

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About this manual

Purpose of the manual

The purpose of this training manual is to build and strengthen the skills of health educators to communicate and promote the key messages that are outlined in the revised *Pacific Guidelines for Healthy Living* from a holistic approach.

The manual has been developed as a tool to facilitate and support the implementation of the *Pacific Guidelines for Healthy Living*.

Expected outcome

The expected development outcome of this tool is social and behaviour change at individual, household, community and government levels. Of particular focus are behaviours that promote healthy eating and lifestyle patterns for long-term health outcomes supported by enabling environments.

Who can use the manual?

This manual is designed for:

- community health educators
- public health nurses and dietitians/nutritionists
- agriculture extension officers
- youth club members
- school teachers
- church group leaders
- sports team coaches.

How to use the manual

This manual is to be used with the *Pacific Guidelines for Healthy Living*. The manual is organised into six main learning modules that correspond with the guidelines in the *Pacific Guidelines for Healthy Living*, with modification to Guidelines 9 and 10 for the purpose of this training manual.

The larger modules are further organised into smaller units. Each module is structured so it can be delivered on its own depending on the area of interest or need.

Table 1: Learning modules and corresponding Pacific Guidelines for Healthy Living

Learning module	Learning unit	Corresponding Pacific guideline for healthy living
1. Food and diet	Unit 1	Guideline 1 – Eat a variety of foods from the 3 food groups in the appropriate amounts each day, and choose fresh, local products.
	Unit 2	Guideline 2 – Eat vegetables and fruits every day.
	Unit 1.3a – Salt Unit 1.3b – Fat Unit 1.3c – Sugar	Guideline 3 – Choose, prepare and eat foods with less salt, fat and sugar.
	Unit 4	Guideline 4 – Prepare, store and keep food safe. Wash hands thoroughly with soap before and after preparing food.
	Unit 5	Guideline 6 – Drink plenty of safe, clean water every day.
2. Tobacco	Unit 2.1 – Tobacco Unit 2.2 – Drugs Unit 2.3 – Betel nut	Guideline 7 – Do not smoke, use tobacco products, chew betel nut or do drugs.
3. Alcohol	Unit 3.1 – Alcohol Unit 3.2 – Home brew Unit 3.3 – Kava	Guideline 8 – Reduce consumption of alcohol, kava and home brew. If you drink, avoid heavy drinking.
4. Physical activity		Guideline 5 – Do at least 30 minutes of moderate-intensity activity (e.g. brisk walking) on 5 or more days each week.
5. Life course [Modified title]		Guideline 9 – Feed babies with breastmilk and nothing else for the first 6 months of life. Start complementary foods at about 6 months and continue breastfeeding until the baby is at least 2 years of age.
6. Well-being [Modified title]		Guideline 10 – Relaxing and being part of a community are good for your health. Make sure you enjoy time with family and friends.

Structure of learning modules

Each learning module structure consists of:

- module overview
- learning units
- learning objectives
- teaching resources
- suggested teaching approaches
- key points
- activities
- summary.

Presentations and learning materials

There is a set of PowerPoint presentations relating to the technical content of the guidelines to be covered in each of the learning modules outlined in Table 1.

These can be adapted to suit the context and specific needs of the participants by including their own resources, illustrations, and teaching strategies and aids to enhance learning.

A list of supplementary information is included for each of the learning modules to support learning.

In addition, a wide range of resources such as posters and information booklets are also available on the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Principles of adult learning

In keeping with adult learning principles and philosophy, the training programme is intended to be presented in an interactive style. Its training strategies will include quizzes, group discussions and activities, role-plays, case studies and hands-on practice to involve participants directly and actively in the learning process. Refer to *Annex 1 for more on effective practices in adult learning*.

Principles of behaviour change communication

To increase awareness, acceptance and usage of the guidelines, they must be effectively disseminated and communicated to all stakeholders and the general public.

Behaviour change communication differs from traditional information, education and communication approaches by moving nutrition programmes beyond awareness raising to focus on behaviour change. Behaviour change communication principles and approaches will be emphasised in the learning activities. *Refer to Annex 2 for more details*.

Suggested group size

The ideal size for the workshops described in this manual is 12 to 24 participants, who preferably share similar knowledge levels and experiences.

Running a healthy workshop

It is important to try to run your workshop in a healthy manner. For example, if possible, there should be:

- a smoke-free training room or environment
- clean drinking water that is readily available
- easy access to hand-washing facilities (so hands can be washed before snacks)
- regular breaks from sitting – even if it's just to stand up and stretch once every 60 minutes
- no alcohol, kava, betel nut/areca nut provided or consumed during the working day
- nutritious and safe foods and drinks provided. When providing food at an event, it is important to offer healthy food choices. *Refer to Annex 3 for a checklist for potential caterers to help plan and provide suitable menu options.*

LEARNING MODULE 1: FOOD AND DIET

Module 1 overview

Refer to the *Pacific Guidelines for Healthy Living: A Handbook for Health Professionals and Educators*, pages 4–17 and 20–21, for detailed technical information for this module.

Learning units

Module 1 covers the guidelines that specifically relate to food and diet in the *Pacific Guidelines for Healthy Living*.

- Unit 1: *Eat a variety of foods from the three food groups in the appropriate amounts each day, and choose fresh, local products*
- Unit 2: *Eat vegetables and fruits every day*
- Unit 3: *Choose, prepare and eat foods with less salt, fat and sugar*
 - 1.3a: *Salt*
 - 1.3b: *Fat*
 - 1.3c: *Sugar*
- Unit 4: *Prepare, store and keep food safe. Wash hands thoroughly with soap before and after preparing food*
- Unit 5: *Drink plenty of safe, clean water every day*

Learning objectives

After completing this module, participants will be able to:

- explain the key basic food, nutrition and food safety principles that underpin good health
- translate basic nutrition principles into simple language that is easily understood by the general public
- develop national campaigns to reduce salt, fat and sugar consumption
- use the principles of behaviour change communication to develop, implement and evaluate food and nutrition programmes
- work with key partners and stakeholders to increase production and consumption of local vegetables and fruits
- advocate for supportive and enabling policies and environments that promote and support healthy eating behaviours.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook – required reading: pages 4–17 and 20–21
- PowerPoint presentations provided
- *Pacific Islands Food Leaflets* <https://www.spc.int/DigitalLibrary/Get/vbnzo>
- *Live Healthy, Stay Healthy: Your Wellness Challenge* <http://purl.org/spc/digilib/doc/5p2xy>
- SPC resources such as posters and information booklets, which are also available from the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

- World Health Organization (WHO) Healthy Diet Fact Sheet https://www.who.int/nutrition/publications/nutrientrequirements/healthy_diet_fact_sheet_394.pdf?ua=1

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the session to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *How would you describe a healthy and balanced diet?*
 - *What are the barriers that you see to Pacific people not eating a variety of foods and not enough fruits and vegetables?*
 - *How have you addressed these barriers? How successful were you in addressing these barriers?*
 - *How do you see your role in supporting people to eat healthily?*
 - *What value do we place on local foods versus imported foods?*
 - *What are some of the traditional practices or taboos around food? How have these influenced your thinking, behaviour and practice?*
 - *How has our culture influenced what and how we eat?*
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

UNIT 1 CONTENT: EAT A VARIETY OF FOODS

Refer to Guideline 1 in the Pacific Guidelines for Healthy Living, pages 4–6.

Key message

Eat a variety of nutritious local foods from the three food groups in the appropriate amounts to stay healthy.

Basic nutrition principles

Eat a variety of foods from the three food groups in the appropriate amounts each day, and choose fresh, local products based the following three basic nutrition principles:

- Eat a **variety** of food from each of the three food groups,
- In the **appropriate amounts**, each day, and
- Choose **fresh, locally grown** food whenever possible.

These three principles are fundamental to achieving a healthy, nutritionally adequate and balanced diet.

1. Variety of food from each of the three food groups

No single food contains all the essential nutrients the body needs to stay healthy and function properly. It is crucial that our diets contain a variety of different foods to ensure we get the full range of nutrients that our bodies need.

We eat foods and foods contain nutrients. The nutrient content of many common Pacific Island foods can be found in the *Pacific Islands Food Composition Tables* and also the *Pacific Islands Food Leaflets*.

Three food groups

The three food groups concept has been widely used for nutrition education in the Pacific to describe the kinds of food to eat, and these are:



Protective foods

- include all vegetables and fruits
- are rich in vitamins, minerals and antioxidants to protect your body from diseases
- rich in fibre to keeps your

Energy foods

are starchy staples (like taro, yams, cassava, sweet potato and breadfruit) and grains and cereals (like bread, rice, etc.), which are high in carbohydrates and provide the body with energy

Body-building foods

-include meat, chicken, seafood, dairy products, eggs, beans and legumes, nuts, etc.
are great sources of protein and iron, which help build and repair your body

Most foods contain a mixture of nutrients and most foods can be put into one of these three food groups based on the nutrient that is most dominant. For example, nuts and seeds contain protein, minerals and fats, and the nutrient profile is similar to that of meat and other body-building foods, hence these are included in the body-building food group.

Within each food group, some foods are more nutritious than others. More nutritious foods are generally fresh and less processed. Refer to Figure 1. Food groups and portion size, page 5, of the *Pacific Guidelines for Healthy Living* for details on the three food groups and key nutrients they provide.

Assessing dietary diversity

To be able to advise and promote eating a healthy diet, it's important to be aware of what people are eating. Refer to pages 35–38 of the *Pacific Guidelines for Healthy Living* for more details on different dietary assessment tools or instruments.

Short exercise: What are you eating?

One of the most common methods of assessing what individuals are eating is the 24-hour diet recall tool. Work in pairs to complete the following activities. Allow 15 minutes to complete the exercise.

1. Take turns to ask and record all the foods and drinks the other consumed and drank during the last 24 hours, whether at home or outside the home. For mixed dishes, ask for the main ingredients in the dish.
2. Briefly assess each other's diets(a)
 - (a) How many different types of protective foods, energy foods and body-building foods have you eaten(b)
 - (b) Do you think you are eating a balanced diet? Why or why not(c)
 - (c) Is this what you usually eat every day? Why or why not?

A variation of this tool has been developed to assess dietary diversity at household level where the person responsible for meal preparation for the household is asked about all the foods eaten in the home during the previous day and night by any member of the household. The Household Dietary Diversity Score is a qualitative measure of food consumption that reflects household access to a variety of foods and is not meant to be used for individuals.

2. Appropriate amount each day: A balancing act

Eating too much food from one food group can contribute to an imbalanced and unhealthy diet that may not contain a full range of essential nutrients from other food groups. An imbalanced diet can contribute to poor nutrition or malnutrition and poor health, thereby compromising the immune system. Refer to Figure 1. Food groups and portion size, page 5, of the Pacific Guidelines for Healthy Living.

Finding the balance

A balanced and healthy diet is one that contains a variety of foods from the three food groups in the right proportions to meet the body's nutrient and energy requirements.

The total amount of food to eat each day to meet nutrient and energy requirements depends on factors such as age, life stage, health status and physical activity. Individuals differ in the amount of energy they require, and energy requirements affect the total amount of food an individual needs.

Keywords:

- **Portion** – refers to the usual amount of a food you choose to eat at any one time, which can be more or less than the recommended serving of the food.
- **Servings/serve** – refers to a set measured amount of food that is usually based on the energy content of the food.
- **Proportion** – refers to the average contribution of each food group to the total daily diet considered to meet the population nutrient requirements for health.

Eating the right amount

Eating the right amount of food is important for maintaining a healthy weight. Eating more than you need combined with an inactive lifestyle (not physically active) can contribute to excess weight gain over time measured by an increased body mass index (BMI). Physical activity is discussed later in more detail in Module 4. Maintaining a healthy body weight is a function of both diet and physical activity. Being overweight or obese increases the risk of developing diseases like diabetes, heart disease and some cancers.

Body mass index

BMI is a useful measure of overweight and obesity for all adult males and females. However, it should be considered as only a guide as it's not appropriate for pregnant women or athletes. It is calculated by dividing body weight in kilograms (kg) by height in metres (m) squared (kg/m^2).

BMI is not the only measure of obesity. Waist and hip circumference measures are also good measures to consider. *Refer to Annex 4 for details on how to take correct weight and height measurements for calculating BMI.*

3. Choose fresh, locally grown foods whenever possible

Eating fresh, locally grown foods is an important aspect of a healthy diet and supports the local economy. Locally grown foods are readily available, generally fresher and more nutritious. Encouraging people to grow their own food is a good way of making fresh vegetables and fruit readily available for the whole family.

Local versus imported

The abundant availability of imported foods is a reality in Pacific countries, and they have contributed to the changing dietary habits of Pacific people. Promoting the growing and consumption of locally grown foods is one way of making people more aware of the health and economic benefits of eating local food.

Group activity

The key message in this unit is for people to eat a variety of nutritious local foods in the appropriate amounts.

Divide participants into four groups as follows:

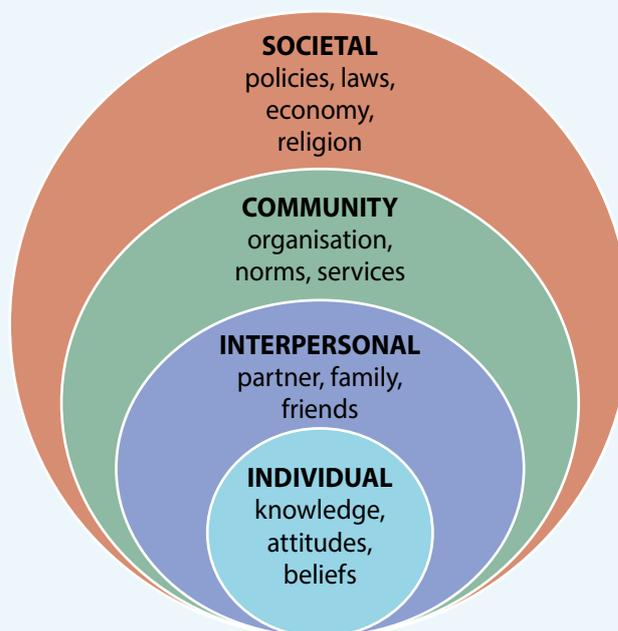
Groups 1 and 2 – focus on healthy eating barriers for obese adult females

Groups 3 and 4 – focus on healthy eating barriers for obese adult males

Groups will have 30 minutes to complete the activity and 5 minutes to share their findings in plenary.

Task:

1. Consider the following socio-ecological model for change (refer to Annex 2 for more details).
2. Identify barriers to eating a variety of nutritious local food in the appropriate amounts in each level of influence for your given audience.
3. What is the most critical barrier?
 - is it information?
 - is it motivation?
 - is it skills?
 - is it values?
 - is it norms?
 - is it policies?
 - is it the products/services?
4. What communication approach or combination of approaches would you use to provide the final push to “tip over” the barriers to change?



Summary of Unit 1

- No single food or food group contains all the essential nutrients that the body needs to stay healthy and function properly.
- Eating too much food from one food group can contribute to an imbalanced and unhealthy diet.
- Maintaining a healthy body weight is a function of both diet and physical activity.
- Encouraging people to grow and eat their own food is one way of making fresh fruits and vegetables more readily available for the whole family.

UNIT 2 CONTENT: EAT VEGETABLES AND FRUITS EVERY DAY

Refer to Guideline 2 in the Pacific Guidelines for Healthy Living, page 7.

Key message

Eat five or more servings of fresh, local vegetables and fruits every day.

What are vegetables and fruits?

Vegetables are parts of plants (leaves, stems, roots, bulbs) that are eaten cooked or raw with main meals and are savoury in taste (e.g. island cabbage, green leafy vegetables, carrots, pumpkin, tomatoes, long beans, etc.). Starchy root crops such as taro, cassava, yams, potatoes, kumara, as well as breadfruit and immature cooking bananas are not counted as vegetables. Vegetables, particularly green leafy vegetables, were traditionally consumed as part of the main meal.

Fruits are the fleshy parts around seeds of plants that taste sweet and are most often eaten raw as a dessert or snack (e.g. ripe bananas, papaya, mangoes and pineapples). Traditionally, fruits were not eaten as part of the main meal but were eaten at other times during the day when in season. This is consistent with best practice evidence of promoting fruit as a healthy snack.



Why should we eat vegetables and fruits daily?

Vegetables and fruits are known as the **protective food group** because of the protective factors they contain. These protective factors are nutrients, vitamins, antioxidants and minerals that are essential for health, especially for the prevention and alleviation of several micronutrient deficiencies. Eating vegetables and fruits may reduce the risk of non-communicable diseases (NCDs) through the increased availability of various nutrients and their ability to modulate associated risk factors. Elevated blood pressure and cholesterol are risk factors for coronary heart disease and stroke, and the potassium provided by vegetables and fruits has been demonstrated to lower blood pressure.

Vegetables and fruits are excellent sources of fibre. Dietary fibre helps to lower blood pressure and reduce the risk of thickening of the arteries (atherosclerosis). Dietary fibre may also help to regulate insulin, which may reduce the risk of type 2 diabetes and, together with the high water content of fruits of vegetables, may help to reduce the risk of overweight and obesity by promoting satiety and reducing hunger, thus limiting overall energy intake.

Antioxidants in vegetables and fruits may also play a role in reducing the risk of cancer by preventing oxidative damage to the cells of the body.

How much should we eat?

Vegetables and fruits are an important component of a healthy diet and should be consumed daily in sufficient amounts. WHO recommends a minimum of five+ servings of fruit and vegetables a day (two servings of fruit and three servings of vegetables). This is equivalent to 80 g per serving or a daily total of 400 g of vegetables and fruits.

Given the high prevalence of obesity in the region, eating more vegetables and fruits can replace high energy foods to effectively reduce the overall energy content of the diet while enhancing nutrient content.

Special protective factors

Vegetables and fruits are often referred to as nutrient dense foods as they are packed full of these protective factors and are low in calories.

Antioxidants are naturally occurring compounds or *phytonutrients* in foods that help reduce the risk of heart disease, high blood pressure and cancer, slow down ageing and support the immune system. In addition, they play a very important role in the body's metabolism, protecting cells from unstable and potentially harmful molecules known as free radicals.

Plant foods are rich sources of antioxidants, and the best sources are fruits and vegetables. Dark and intensely coloured plant foods generally contain more antioxidants than pale ones. The "eat a rainbow" campaign encourages people to eat a variety of different coloured fruits and vegetables every day. The body does not store antioxidants, so they need to be replaced daily.



Table 2: Antioxidants and food sources

Antioxidant compound	Sources
Vitamin C	Citrus fruits like oranges, limes, etc.
Vitamin E (tocopherol)	Whole grains, nuts and seeds, green vegetables
Beta-carotene	Carrot, papaya, pumpkin, corn
Flavonoids	Vegetables, red wine, tea
Anthocyanins	Purple and blue fruits and vegetables, like red grapes, purple cabbage and red onions, and red wine
Polyphenols	Grape juice, tea
Lycopene	Red coloured fruits and vegetables like tomatoes, watermelon, guava
Selenium	Brazil nuts, whole grains

Helping people to eat more vegetables and fruits daily

STEPS and nutrition surveys recently conducted in the Pacific show that Pacific people are not eating enough vegetables and fruits.

Some suggested actions to address low fruit and vegetable consumption include:

- behavioural interventions to increase vegetable and fruit consumption, such as adding colourful vegetables to salads or adding more vegetables to soups and stir-fries

FIVE WAYS WITH VEGETABLES

Fresh or cooked veges are an essential part of a healthy diet. Sometimes vitamins can be lost during cooking, so here are some ways to maximise the vitamin content of your vegetables.

FRESH

Many vegetables can be eaten fresh in salads with just a quick wash. Remember, lots of the nutrients are in the skin of vegetables, so try giving them a good scrub with clean water rather than removing the skin.

STEAMING

Steaming is a nutritious way to prepare vegetables as it stops any vitamins being lost in cooking water.

SAUTÉ/STIR-FRYING

This is a way of cooking vegetables in a pan, using just a little oil and cooking them quickly to avoid nutrient loss.

BLANCHING

Blanching vegetables is a quick and easy way to cook veges without losing all those good nutrients. Especially good for more delicate green vegetables such as fern, Chinese cabbage and choy sum.

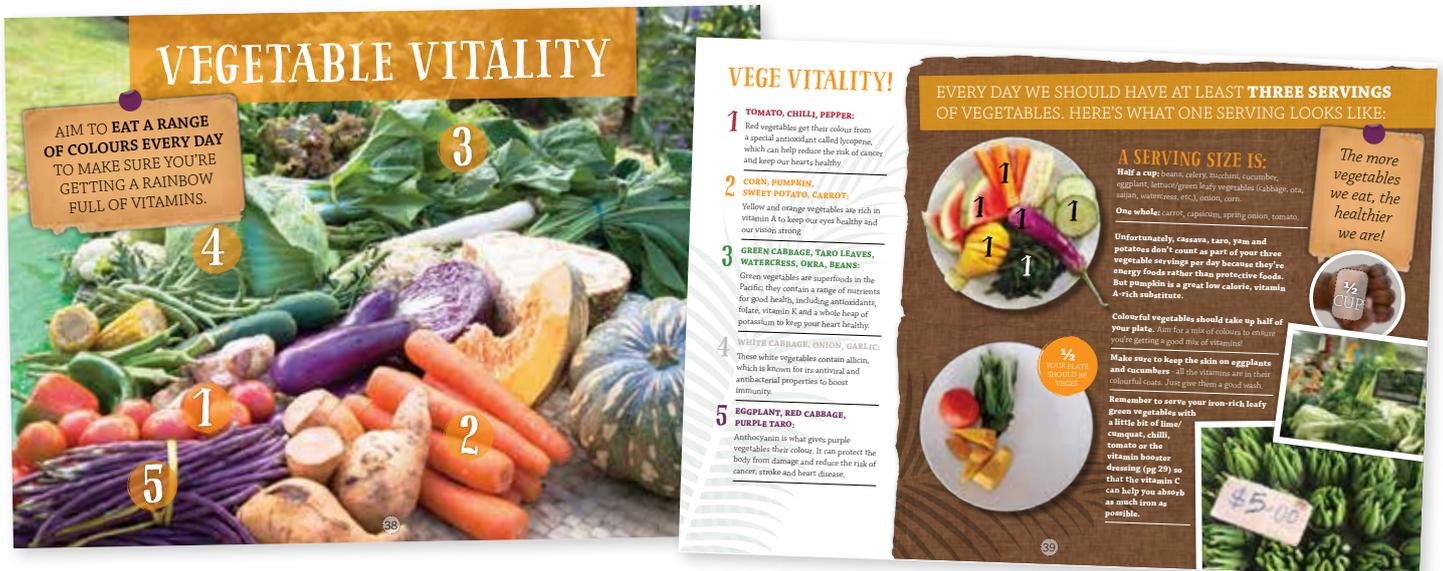
BOILING

Some vegetables require boiling. These are the denser vegetables, e.g. taro, potato, cassava, yam, carrots. Cut them into similar size pieces before cooking.

Tip: If you are short of time, a full hot or kettle of boiled water poured slowly over your veges in a strainer also works well. They should still be a nice vibrant green and crunchy to eat.

Tip: The boiled water will now contain some of the vegetable nutrients. Turn it into a soup, or let it cool before pouring it over your vegetable garden to avoid wasting them.

- promotion and support of gardening in home, community and school settings
- pricing incentives such as subsidies that lower the cost of vegetables and fruits
- improvements in agricultural and food systems to increase production and availability of local produce.



Group activity

According to the STEPS survey results, Pacific people are not eating enough vegetables and fruits.

Divide participants into four groups and assign a scenario to each group. Groups will have 30 minutes to complete the task and 5 minutes to share their insights in plenary.

Scenario 1 – Promote consumption of colourful vegetables at every meal

Scenario 2 – Promote the health benefits of vegetables and fruits

Scenario 3 – Increase local production of vegetables and fruits

Scenario 4 – Develop a national five+a-day campaign

Task: Consider the seven steps in designing for behaviour change (refer to Annex 2 for details) and develop a plan to address the scenario:

- What is the behaviour we want promote?
- Who needs to practise the behaviour and who is influencing the behaviour?
- What are the main barriers and motivators to adopting the promoted behaviour?
- What are the behaviour change activities to develop and implement?
 - Think "EAST": Easy, Attractive, Social and Timely
- How will the changes be measured?

Present and critique the feasibility of the plans in plenary.

Summary of Unit 2

- Vegetables and fruits are known as the protective food group.
- They are rich sources of protective factors that are essential for health such as vitamins, fibre, minerals and antioxidants.
- Eating more vegetables and fruits every day can reduce chronic diseases such as NCDs because they are high in fibre, low in salt and fat, and low in calories.
- For good health, it is recommended that people eat at least five serves of vegetables and fruits (three serves of vegetables and two serves of fruit) each day – a variety in type and colour is best.
- Fresh, local vegetables and fruits are best.

UNIT 3 CONTENT: CHOOSE, PREPARE AND EAT FOODS WITH LESS SALT, FAT AND SUGAR

Unit 3 is divided into three sections to address each of the topics separately:

- Unit 1.3a – Salt
- Unit 1.3b – Fat
- Unit 1.3c – Sugar

1.3a – SALT

Refer to the *Pacific Guidelines for Healthy Living*, pages 8–10.

Key message

Reduce salt intake to less than one teaspoon of salt a day.

Salt

Salt is the chemical compound sodium chloride. Both minerals are needed but in very small amounts by the body for maintaining fluid balance. A diet high in salt would also be high in sodium. Having too much sodium in the body causes high blood pressure, which increases the risk of stroke, coronary heart disease and other cardiac disease, as well as osteoporosis, stomach cancer and kidney disease.

However, salt also plays an important role in food preservation and commercial food processing as well as enhancing food flavours during preparation and cooking.

Salt in our diet: Be aware of it

People are often unaware of the amount of salt they are consuming as a lot of commercially processed food does not obviously taste salty but may contain high amounts of salt.



Examples of commercially processed ready-to-eat foods that are high in salt include:

- ready-to-eat meals
- processed meats like bacon, ham and salami
- instant noodles
- salty snacks
- food consumed frequently in large amounts such as bread.

Checking the salt content on food labels is one quick way of making healthy food choices. Salt comes in many forms and under many names. Some names are more obvious than others, as listed here:

Disodium guanylate (GMP)	Disodium inosinate (IMP)	Fleur de sel
Himalayan pink salt	Kosher salt	Monosodium glutamate (MSG)
Rock salt	Salt	Sea salt
Sodium bicarbonate or baking soda	Sodium chloride	Sodium citrate
Sodium diacetate	Sodium erythorbate	Sodium glutamate
Sodium lactate	Sodium lauryl sulfate	Sodium metabisulfite
Sodium nitrate	Sodium phosphate	Table salt
Trisodium phosphate		

In culinary circles, some chefs may prefer kosher or sea salts for their taste, texture or colour. But table salt, kosher salt and most sea salts all contain about 40% sodium by weight. Even though sea salt may have some trace minerals like magnesium, potassium and calcium, their amounts are very small, and you can get them from other healthy foods.

How much salt should we consume in a day?

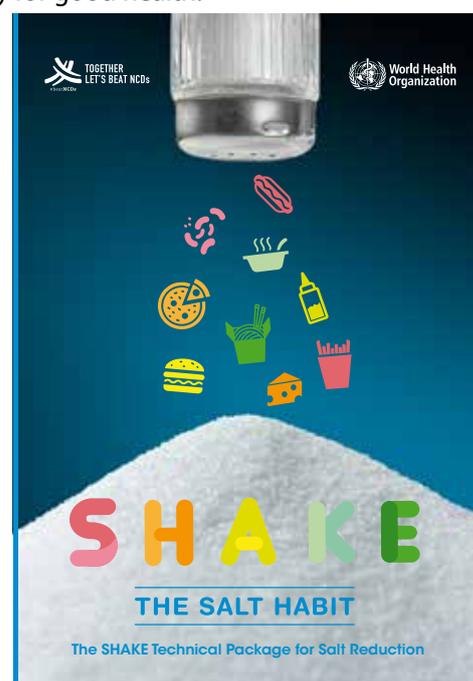
WHO recommends that people consume less than 1 teaspoon of salt per day for good health.

Cost-effective interventions

Reducing salt intake has been identified as one of the most cost-effective interventions for reducing the burden of NCDs. Examples of cost-effective interventions include:

- adopting policies and legislation that restrict the availability of high salt foods such as legislation requiring salt to be labelled on food products and monitoring the salt content of foods in the food supply
- raising awareness of the benefits of reducing salt intake through education strategies and behaviour change communication
- working with caterers in schools, workplaces, hospitals and childcare centres and other institutions that provide food to the public to restrict the availability of high salt foods and set targets for salt levels in meals.

These interventions are based on the *WHO SHAKE* package of interventions and are recognised in the *Pacific NCD Roadmap*.



Short exercise: Be aware

Being aware of the salt content of foods is one way of learning to make healthy food choices.

This exercise is to be done in pairs or in a small group and will take 15 minutes to complete. Each pair will be given two cans and two packets of commercially processed foods bought from a local supermarket (refer to Annex 5 on understanding nutrition labels).

Task:

- *Describe how the label was presented. Was it easy to read and understand?*
- *Note the amount of salt/sodium contained in each food. How would you rate it in terms of the salt content?*
- *Compare the salt content of the foods you have. Which one would you recommend and why?*
- *What other names for salt do you notice on the ingredient list?*

Group activity

Divide participants into four groups and assign each group one of the following scenarios. Groups will have 30 minutes to develop a plan and 5 minutes to share their plan with the other groups.

Scenario 1 – Conduct a salt-reduction training for school food vendors

Scenario 2 – Write a submission to Cabinet requesting a review of existing legislation to include clear food labelling requirements

Scenario 3 – Develop a national salt-reduction awareness campaign

Scenario 4 – Develop an information pamphlet on salt reduction to support nutrition counselling programmes for people with high blood pressure

Task:

- *Consider the socio-ecological model for change and the seven steps for developing effective behaviour change communication programmes (Annex 2) to guide your group work discussion.*
- *Strategise and draft a plan on how you would address your particular scenario. Consider your target audience and their needs.*

Summary of Unit 1.3a Salt

- Too much salt in the diet increases your risk of high blood pressure, stroke, heart failure, stomach cancer and kidney disease.
- High sodium means high salt content in foods.
- Reduce salt intake to less than 1 level teaspoon a day.
- Choose and prepare foods with less salt for family meals.
- Check food nutrient labels for sodium/salt content, including other terms for sodium, and choose foods with less sodium.

1.3b – FAT

Refer to the Pacific Guidelines for Healthy Living, pages 10–14.

Key message

Choose, prepare and eat foods with less fat, particularly saturated and trans fat.

Fat

Dietary fat is an important source of energy and provides essential fatty acids, which are necessary for good health. Different types of fats have different types of functions and effects on the human body, and they can all be found in the foods we eat.

Table 3: Major types of dietary fats, their effects and sources

Type of fat	Effect	Sources
Saturated fats	↑ blood cholesterol ↑ risk of blocking arteries ↑ risk of heart disease and stroke	• Animal products – meat and fat on meat, lard, chicken skin, egg yolk • Dairy products – milk, cheese, butter, ghee • Mature coconut flesh – coconut cream and oil • Palm oil and processed foods made with palm oil such as take-away fried foods, noodles, potato crisps, cakes, cookies, pies, pastries, crackers
Monounsaturated fats	↓ risk of heart disease and stroke ↓ total cholesterol ↓ LDL (bad) cholesterol • little effect on HDL (good) cholesterol • source of essential fats	• Oils – canola, olive, peanut, safflower, sesame • Avocados • Nuts – almonds, hazelnuts, peanuts, flaxseeds, walnuts
Polyunsaturated fats Omega-6 fatty acids Omega-3 fatty acids	↓ total LDL ↓ blood pressure ↓ risk of heart disease and stroke	• Sunflower seeds • Soybean, canola and linseed oils • Oily fish (canned and fresh) – mullet, mackerel, sardines, salmon, tuna, herrings
Hydrogenated oils and trans-fatty acids (TFA)	↑ blood pressure ↑ risk of blocking arteries ↑ risk of heart disease and stroke ↑ risk of type 2 diabetes	• Partially hydrogenated oils • Processed foods made with hydrogenated oils such as some baked products, fried foods, margarine

Trans fat

Increased intake of TFA (> 1% of total energy intake) is associated with increased risk of coronary heart disease events and mortality.

There are two main sources of TFA:

- natural sources (in dairy products and meat of ruminants such as cows and sheep – defined as ruminant TFA)
- industrially produced sources (partially hydrogenated oils). Partially hydrogenated oils are primarily used for deep frying and as an ingredient in baked goods; they can be replaced in both.

WHO recommends less than 1% energy intake from TFA – less than 2.2 g.

Coconut oil and coconut cream

Coconut cream is a key ingredient in many Pacific dishes. The key is to consume it in moderation. Coconut oil is used mainly as a beauty product for the hair and skin rather than for cooking.

The fat content of mature coconut flesh (per 100 g edible portion) varies at different stages: coconut flesh, fresh, mature (40 g); coconut cream, fresh, no water (32.3 g); coconut cream, fresh, water added (24.9 g); and coconut oil (99.9 g).

Evidence of the health benefits of coconut oil remains controversial and more research is needed to clarify the role of coconut oil in heart disease.

Fat in our diet

Different foods provide different types of fats in our diet. Many processed foods (imported and locally produced), animal products and some plant-based foods, such as nuts and seeds, contain a lot of fat. High fat foods are often referred to as energy dense foods because 1 g of fat contains 9 calories.

Being aware of what's in the food we eat and checking information on nutrient labels and the ingredient list of packaged processed food can help you to select healthier food options for family meals.

As a general rule, food products are better choices if the labels show:

- less than 10 g total fat per 100 g of food, and
- less than 2 g per 100 g of saturated fat
- no trans fats.

How much fat should we consume in a day?

The amount and types of fat consumed are also important. According to WHO recommendations:

- fat should provide only up to 30% (15–30%) of total daily energy
- 10% should be from saturated fat and 1% from TFA
- at least 20% of calories from fat is consistent with good health; i.e. 8–9 teaspoons a day (includes fat from all dietary sources).

How to reduce fat intake

Fat carries the flavour of the food, making it very palatable, hence many fatty foods are tasty! It's important that people are aware of not only the type but also the total amount of fat in the foods they eat. Checking food labels of packaged foods is one quick way of being aware and making healthy choices. Healthy food does not have to taste bland either. Adopting healthy cooking methods with less fat is one way of reducing fat intake and enhancing flavour with herbs and spices.

Industrially produced TFA have no known health benefits and eliminating it from the food supply is feasible and achievable. **REPLACE** is a programme outlining six key strategies aimed at reducing and eliminating industrially produced TFA from the food supply.

REPLACE					
REVIEW	PROMOTE	LEGISLATE	ASSESS	CREATE	ENFORCE
dietary sources of industrially-produced trans fats and the landscape for required policy change	the replacement of industrially-produced trans fats with healthier fats and oils	or enact regulatory actions to eliminate industrially-produced trans fats	and monitor trans fat content in the food supply and changes in trans fat consumption in the population	awareness of the negative health impact of TFA among policy-makers, producers, suppliers, and the public	compliance with policies and regulations

Source: REPLACE trans fat: An action package to eliminate industrially produced trans-fatty acids.
 Available at: <https://www.who.int/docs/default-source/documents/replace-transfats/replace-action-package.pdf>

Group activity

Divide participants into three groups and assign a scenario to each group. Allow 30 minutes for group work and 5 minutes for sharing group work and opportunities to develop the scenarios beyond the workshop.

Scenario 1 – Raise awareness of the negative impact of TFA among the general public

Scenario 2 – Prepare a media release for World Heart Day focusing on regulatory actions to eliminate TFA from the food supply

Scenario 3 – Draft a research proposal to review sources of TFA in the food supply

Task:

- Discuss and strategise how to address your particular scenario.
- What behaviour change communication approach would you use?
- What additional information do you need?
- Share ideas and plans in plenary.

Practical cooking demonstration

If time permits, organise a time with a local chef to provide a practical cooking session on how to prepare and serve at least a lunch and a dinner using locally available foods with less fat and salt.

LUNCH

MOUTHWATERING MARSHALL CHICKPEA AND TOMATO CURRY

INGREDIENTS SERVES 4

- 1 tbsp canola oil
- 1 onion, chopped
- 1 clove garlic, crushed
- ½ tsp ground cumin
- ½ tsp ground coriander
- ½ tsp turmeric
- ½ tsp chilli powder
- 400 g can chickpeas, drained and rinsed, or two cups of raw, soaked chickpeas (See page 21)
- 420 g can chopped tomatoes, or 8–10 chopped fresh tomatoes
- 5 cm piece of fresh ginger, grated/steed finely
- Handful of coriander, chopped.

WHAT YOU DO

Step 1: Heat the oil in a large sautépan. Add the onion and garlic. Fry until golden. Add all the spices and stir for 2 minutes.

Step 2: Add the chickpeas and stir them in with the spices. Add the tomatoes. Simmer for 10 minutes until thickened. Add the ginger and stir well. Serve garnished with coriander.

For Tuvatuans the palaka (giant swamp taro) is not only an essential part of their diet but is also part of their culture as palaka growing pits are passed down through generations. When fathers teach their sons the secrets of planting palaka, the son is "practising how to live like a man"

DINNER

SAMOAN VEGGIE STACKER

INGREDIENTS SERVES 6

- ½ pumpkin, mashed (or two sweet potatoes, mashed)
- 1 bunch of leafy greens (belle, alperger cabbage, chinese cabbage, sweet potato leaves)
- 3 wholemeal tortillas or roti (alternatively, you can use pasta to make a lasagne version)
- 1 can (2 cups) kidney beans (see page 21)

optional extra you could swap one cup of beans for mince meat for an extra dose of iron:

- 1 chilli, deseeded and chopped
- 2 tomatoes, finely chopped
- ½ onion, finely chopped
- 1 tsp garlic, sliced
- ½ cup grated cheese

WHAT YOU DO

Step 1: Put the kidney beans, chilli, onion, garlic and tomatoes in a pan. Cook over a low heat for five minutes. Set aside.

Step 2: Boil and mash the pumpkin. Blanch the leafy greens with the chopped garlic to add more flavour.

Step 3: Place one tortilla (or roti) in a deep dish. Spread out half of the kidney beans mixture, the mashed pumpkin and leafy greens on top of the tortilla/roti. Repeat this process, then put the final tortilla on top. Sprinkle it with grated cheese.

Step 4: Cook under the grill for 15–20 minutes. Divide into six pieces and enjoy!

DID YOU KNOW?
Seventy NEW varieties of sweet potato will soon be available in the Pacific!
With support from the New Zealand government SPC scientists are working on introducing new varieties all the way from South America that are nutrient rich and weather resistant.

Summary of Unit 1.3b Fat

- Fat is essential for health but must be consumed in a moderate amount.
- The total amount of fat in the diet is as important as the type and source of dietary fat.
- Be aware of how much fat is contained in processed foods.
- Check/read the nutrient label on packaged foods to help you select healthier options and use cooking methods that use less fat.
- Coconut cream can still be part of a healthy diet and could be the main source of saturated fat

1.3c – SUGAR

Refer to the Pacific Guidelines for Healthy Living, pages 14–16.

Key message

Choose, prepare and eat foods with less added or free sugar.

Sugar

Sugar is a type of carbohydrate. Carbohydrates are the main source of dietary energy that the body uses and 1 g provides 4 kcal.

Table 4: Types of carbohydrates

Type of carbohydrate	Definition
Simple carbohydrates or sugars	<ul style="list-style-type: none"> Mainly monosaccharides (single sugar molecule), such as glucose and fructose, and disaccharides (2 sugar molecules), such as sucrose and maltose Have a characteristically sweet taste These are readily absorbed by the body Glucose is the most important type of carbohydrate as it is the main source of dietary energy that the body uses
Complex carbohydrates	<ul style="list-style-type: none"> Oligosaccharides (contain few sugar molecules, from 3 to 9) and polysaccharides (contain many sugar molecules) Not sweet <ul style="list-style-type: none"> Starches <ul style="list-style-type: none"> are polysaccharides; break down in the body into simple sugar components to be absorbed by the body as a source of energy, so take longer to digest Fibre <ul style="list-style-type: none"> can only be partially broken down with the help of gut bacteria; adds bulk to stools and prevents constipation helps to slow down absorption of simple sugars and maintain blood glucose levels

Table 5: Types of sugar

There are different types of sugar, found in different forms and known by many different names!

Type of sugar	Definition
Free sugars	<ul style="list-style-type: none"> Sugars that are not bound into a cellular structure, such as honey, fruit and vegetable juices (sugar is freed from the cellular structure), fruit juice concentrates, white/brown/raw sugars Include all added sugars in whatever form as an ingredient during the manufacturing or cooking process They are mixtures of monosaccharides (e.g. glucose, fructose) and disaccharides (e.g. sucrose, maltose) and syrups These are readily absorbed by the body High intake of free sugars is linked to obesity and dental caries Sugar-sweetened beverages (SSBs) are a major source of free sugars in our diet
Intrinsic sugars	<ul style="list-style-type: none"> Sugar held within the cellular structure of foods – sugar is part of the food (e.g. sugars in fruits, vegetables and grains) Fruits and vegetables eaten raw contain only intrinsic sugars and other nutrients such as dietary fibre
Milk sugars	<ul style="list-style-type: none"> Sugars naturally present in milk and milk products (e.g. lactose – a disaccharide made up of galactose and glucose)

Hidden sugar: Be aware

Sugar is often a hidden ingredient in processed foods as it is a sweetener, enhances flavour, promotes browning and aids in preservation. However, the high sugar content in foods contributes to excessive sugar intake, which can lead to type 2 diabetes, excessive weight gain, and contribute to metabolic syndrome. Be aware of the many different names that sugar goes by and consider making gradual changes to choosing, preparing and eating foods with less sugar.

Sugar is known by many different names. Check the ingredient list for the following:

Names ending with –ose: dextrose, fructose, galactose, glucose, glucose solids, high fructose corn syrup, lactose, maltose, sucrose

Other names: barley malt, beet sugar, brown sugar, buttered syrup, cane juice, cane juice crystals, cane juice solids, caramel, carob syrup, corn syrup, corn syrup solids, date sugar, dehydrated cane juice, dehydrated fruit juice, dextran, dextrin, diatase, diastatic malt, ethyl maltol, fruit juice, fruit juice concentrate, fruit juice crystals, golden syrup, maltodextrin, malt syrup, maple syrup, refiner’s syrup, sorghum syrup, turbinado, yellow sugar

Sugar-sweetened beverages (SSBs)

The calories in SSBs can contribute to weight gain and provide little to no nutritional value. There is compelling evidence that SSBs are harmful to health and increased consumption is known to cause dental caries as well as increase the risk of unhealthy weight gain, obesity, metabolic syndrome, gout, type 2 diabetes and many other health conditions.



How much sugar should we consume?

As a general rule, products that contain 10 g or less of added sugar per 100 g of food (more if fruit is present in the product) are healthier options.

WHO recommends that “free sugar” should provide less than 10% of daily calories and a further reduction to below 5% for additional benefit. These amounts take into account total sugar intake from all dietary sources, especially dietary sources of free sugar such as SSBs, fruit juices and table sugar added to tea and coffee, etc.

How to reduce free sugar in the diet

The key message is to *limit the intake of free or added sugar* to at least less than 5 teaspoons a day.

Taxing sugar and SSBs has been identified as a cost-effective measure for controlling the availability of sugar in the food supply. SSB taxation is an example of a policy that aims to increase the price of SSBs relative to more healthy alternative options making them less accessible. However, SSB taxation is much more likely to reduce consumption if it is part of a broader package of policy measures. Other policy options include banning importation of SSBs, restricting sales of SSBs at schools, restricting the marketing of SSBs to children and raising public awareness.

Group activity

Taxing sugar and SSBs has been identified in the Pacific NCD Roadmap as a cost-effective way of controlling the accessibility and availability of sugar in the food supply.

Task: Hold a debate on the pros and cons of imposing taxes on sugar and SSBs. Divide the participants into three teams – 1: the pros, 2: the cons and 3: the law makers. Allow 10–15 minutes for teams 1 and 2 to prepare argument points and team 3 to prepare key points in anticipation of the two opposing teams' arguments, and be ready to justify which team to support. Teams 1 and 2 will have 5 minutes to present their case. There will be 10 minutes allocated for general discussion and for team 3 to share their views.

Discuss the different views expressed and the responses. Which side was easy to support? How realistic were the points presented by the two teams?

Summary of Unit 1.3c Sugar

- Sugar is a type of carbohydrate and a source of dietary energy.
- It is a sweetener, preservative, food additive and colour enhancer.
- Too much sugar in the diet contributes to weight gain, dental carries, diabetes, etc.
- Total sugar intake from all dietary sources, especially free sugars from SSBs, fruit juices and table sugars, should be less than 5 teaspoons a day.



UNIT 4 CONTENT: FOOD SAFETY

Refer to Guideline 4 in the Pacific Guidelines for Healthy Living, pages 16–18.

Key message

Food must be nutritious and safe to eat for good health.

Food safety

Access to enough safe and nutritious food is essential to life and health. It is also crucial to economic development. Safe food supplies support national economies, trade and tourism, contribute to food and nutrition security, and underpin sustainable development.

NATURALLY SWEET

- 1 Watermelon:**
Watermelons are 95% water! Making them a great way to stay hydrated.
- 2 Pineapple:**
Pineapples contain the powerful enzyme bromelain, which helps break down protein in food to speed up digestion.
- 3 Banana:**
Bananas are rich in potassium, which helps improve circulation, increasing delivery of oxygen to the brain to keep us sharp and boost heart health.
- 4 Orange/Mandarin:**
Molis are rich in vitamin C, which we need to keep our immunity up to speed. Lucky they are abundant in the cooler months!
- 5 Pawpaw/Papaya:**
Up to 80% of Pacific Islanders aren't eating enough vitamin A. Just half a pawpaw contains over 50% of your daily vitamin A needs for healthy eyesight and immunity.
- 6 Guava:**
Guavas have two times more fibre than apples and loads of antioxidants.
- 7 Mango:**
Mangoes have a lot of fibre to keep you feeling full for longer and stop hunger pangs.
- 8 Coconut:**
The fat in coconuts helps us absorb important nutrients like vitamins A, E and K from our fruits.
- 9 Cuminquats, lime and lemon:**
Good for natural juice.

Foodborne illnesses

Foodborne illness or food poisoning is caused by eating contaminated food.

Food can be contaminated with:

- pathogenic micro-organisms such as bacteria, viruses, mould and parasites in raw food, unclean surfaces and utensils, or unwashed hands
- chemicals migrating from packaging or other contact surfaces that are not food-grade quality, or being accidentally spilt or sprayed onto food
- foreign objects such as pests, droppings, glass, dirt, jewellery and hair falling or otherwise being mixed into food.

Contamination can occur at any point during food preparation, from production to consumption, if food is not handled or cooked properly. **Cross-contamination**, or the transfer of harmful organisms from one surface to another due to poor personal hygiene and food-handling practices, is often the cause of food contamination. This is especially important when handling raw, ready-to-eat foods, such as salads or other produce. Because these foods are not cooked, harmful organisms are not destroyed before eating and can cause food poisoning. Poor cleaning and sanitising practices and time–temperature misuse are other causes of food contamination.

It is important to note that the look, smell or taste of a food may not change as a result of contamination. However, if it smells off or looks suspicious, it is most likely *not* safe to taste or eat.

Symptoms of foodborne illnesses

The most common symptoms of foodborne disease are:

- stomach pains, cramps
- vomiting
- diarrhoea.

The symptoms depend on the source and amount of the contaminant. Symptoms may occur very quickly after eating the food or may take days or even weeks to appear and depend on the organism, the amount of exposure, and age and health status of the individual. For most foodborne diseases, symptoms occur 24–72 hours after the food has been eaten.

Foodborne illnesses caused by certain bacteria, viruses or parasites are **contagious or infectious**. So, it's important to take steps to protect yourself and to prevent the spread of the illness by practising good hygiene.

Example: E. coli

- *Escherichia coli (E. coli) is a bacteria commonly found in the gastrointestinal tract of warm-blooded organisms. Most E. coli strains are harmless, but some can cause serious food poisoning, including life-threatening diseases in young children and the elderly.*
- *Shiga toxin-producing strain (STEC) can cause severe and contagious illness.*
- *Primary sources of STEC outbreaks are raw or undercooked mincemeat, raw milk and vegetables that have been contaminated with faeces from domestic or wild animals.*
- *STEC is heat sensitive, so following basic food hygiene practices, such as cooking food thoroughly, can prevent transmission of STEC.*

Foodborne illnesses due to chemicals or some toxins found in food are considered *not contagious* and do not spread from person to person. However, they can cause serious health problems and even be fatal if consumed in large amounts.

Example: Ciguatera poisoning

- *Ciguatoxin is a natural toxin produced by certain algae that reef fish feed on.*
- *Ciguatera poisoning is a common type of food poisoning in the Pacific from eating reef fish that have high levels of ciguatera toxins.*
- *Severity of the symptoms depends on the amount of toxin consumed.*
- *It is not contagious but can cause life-threatening complications and even be fatal if not treated properly.*
- *Prevention includes becoming aware of local fishing practices that have identified the types of reef fish to avoid at particular times of the year to minimise the risk of ciguatera poisoning.*

Complications

The most common serious complication of food poisoning is dehydration — a severe loss of water and essential salts and minerals. If you're a healthy adult and drink enough to replace the fluids you lose from vomiting and diarrhoea, dehydration shouldn't be a problem.

Infants, older adults and people with suppressed immune systems or chronic illnesses may become severely dehydrated when they lose more fluids than they can replace. If not treated properly, dehydration can be fatal. In that case, they may need to be hospitalised and receive intravenous fluids.

Some types of foodborne illnesses have potentially serious complications for certain people.

Example: Listeriosis

- *Infection in pregnant women can lead to miscarriage, stillbirth, premature delivery or life-threatening infections of the newborn baby.*
- *It can lead to septicaemia and meningitis in older adults with a weakened immune system.*

Groups most at risk from foodborne illnesses

- **Pregnant women** are more susceptible to increased risk of food poisoning due to changes in their metabolism and circulation.
- **Infants and young children** are at greater risk for developing foodborne illnesses, as their immune systems haven't fully developed yet.
- **Older adults.** As people get older, their immune system may not respond as quickly and as effectively to infections as when they were younger.
- **People with chronic disease.** Having a chronic condition — such as diabetes, liver disease or AIDS — or receiving chemotherapy or radiation therapy for cancer reduces your immune response.

How to keep food safe

Food can become contaminated and unsafe at any point from production to consumption. Everyone has a part to play to ensure that available food is both nutritious and safe to eat!

➤ Consumers and food handlers

Foodborne illnesses can affect everyone. The “five keys to safer foods” outline the basic food-handling behaviours for all consumers and food handlers. The five keys are:

- 1. *Keep hands and utensils clean and practise personal hygiene.*** While most micro-organisms do not cause disease, harmful ones are widely found in soil, water, animals and people. These micro-organisms are carried on hands, wiping cloths and utensils, especially cutting boards, and the slightest contact can transfer them to food and cause foodborne diseases. To prevent cross-contamination:
 - wash your hands before handling food and often during food preparation
 - wash your hands after going to the toilet
 - wash and sanitise all surfaces and equipment used for food preparation
 - protect kitchen areas and food from insects, pests and other animals.
- 2. *Separate raw and cooked foods.*** Raw foods, especially meat, poultry and seafood and their juices, can contain harmful micro-organisms that may be transferred onto other foods during food preparation and storage. To minimise the risk of foodborne illnesses:
 - separate raw meat, poultry and seafood from other foods
 - use separate equipment and utensils such as knives and cutting boards for handling raw foods
 - store foods in a sealed container or cover foods to avoid contact between raw and prepared foods.
- 3. *Cook food thoroughly.*** Proper cooking of food to temperatures of $\geq 70^{\circ}\text{C}$ can help kill almost all dangerous micro-organisms. To ensure food safety:
 - cook food thoroughly, especially minced meat, poultry, eggs and seafood
 - bring foods like soups and stews to boiling point to make sure that they have reached 70°C . Make sure that juices from cooked meat are clear and not pink. Ideally, use a thermometer if you have one.
 - reheat cooked foods thoroughly.
- 4. *Keep and store food at the right temperature.*** Micro-organisms can multiply very quickly if food is left at room temperature. By keeping the temperature below 5°C or above 60°C , the growth of micro-organisms is slowed down or stopped. However, some micro-organisms can still grow below 5°C . To prevent food from getting spoiled:
 - do not leave cooked food at room temperature for more than 2 hours
 - refrigerate promptly all cooked and perishable foods, preferably below 5°C
 - keep cooked food piping hot (more than 60°C) prior to serving
 - do not store food too long, even in the refrigerator
 - do not thaw frozen food at room temperature.

5. **Use safe water and raw food materials.** Raw materials, including water and ice, may be contaminated with harmful micro-organisms and chemicals. Toxic chemicals may be found in damaged and mouldy foods. Take care when selecting raw materials, and simple measures such as washing and peeling may reduce risk. To minimise the risk of contaminating food with harmful micro-organisms and chemicals:

- use safe water to wash the food to make it clean
- select safe and wholesome food, and avoid packaged foods with obvious signs of damage
- choose food processed for safety such as pasteurised milk instead of unpasteurised milk
- wash fruits and vegetables with clean water if eaten raw
- do not use food beyond the expiry date.

➤ **Food vendors, premises and businesses – Hazard analysis and critical control point (HACCP)**

HACCP is a food safety management system, a way of managing food hygiene practices and safety procedures in food businesses to *protect consumers* from unsafe practices and *business owners* from unfair accusations of malpractice.

The seven key HACCP principles are:

1. **Identify hazards at every critical point** in your operation and determine what can go wrong at those points – purchasing, delivery, storage, preparation, cooking, chilling, serving, etc. For example:
 - *salmonella in cooked chicken due to cross-contamination with raw meat (biological hazard)*
 - *contamination of uncovered food with detergent at point of delivery (chemical hazard)*
 - *a piece of broken glass that has fallen onto uncovered food in storage (physical hazard).*
2. **Determine the critical control points (CCPs).** Identify the points in your operation where identified hazards can be controlled or minimised. For example:
 - *cooking raw meat thoroughly will kill pathogens such as E. coli O157.*
 - *storing perishable foods in the refrigerator reduces the rate at which food will deteriorate.*
3. **Establish critical limit(s).** Set limits to enable you to identify when a CCP is out of control. For example, when cooking beef burgers, the centre of the burger must reach a minimum temperature of 75°C (or an equivalent time temperature combination; e.g. 70°C for 2 minutes) to ensure pathogens are destroyed.
4. **Establish a system to monitor control of the CCP.** When CCPs and critical limits have been identified, it is important to have a way to monitor and record what is happening at each CCP, typically measuring temperature and time. What you monitor and how often you monitor will depend on the size and nature of your business. Monitoring should in all cases be simple, clear and easy to do. For example, probe refrigerated food to ensure that it is being maintained below 5°C.
5. **Establish the corrective action** to be taken when monitoring indicates that a particular CCP is not under control. For example, the temperature of the food in a refrigerator rises to 10°C due to a technical fault or an extended power cut. Discard the food and repair the refrigerator using the manufacturer's instructions to ensure the correct temperature of 5°C is achieved.

6. **Establish procedures for verification to confirm the HACCP system is working effectively.** Review and correct the system regularly and whenever you make changes to your operation. For example, when replacing an oven, verify that the time/temperature settings in the new oven achieve the minimum safe cooking temperature for a particular dish by probing the food.
7. **Establish clear documentation** for all the mentioned principles, procedures and records. Appropriate documentation and records must be kept and be readily available to demonstrate compliance with food legislation.

Group activity

Work in pairs. You have 15 minutes to discuss and share your viewpoints. Consider the “five keys to safer food” and discuss the following questions:

- Have you ever experienced food poisoning? What did you do, how did you cope with it and what lesson did you learn from your experience?
- Which of the five key behaviours are easy to follow? Why or why not?
- How would you describe the system for handling an outbreak of foodborne illness in your community?

Summary of Unit 4

- Access to enough safe and nutritious food is essential to life and health.
- Safe food supplies support national economies, trade and tourism, contribute to food and nutrition security, and underpin sustainable development.
- Keeping food safe prevents foodborne illnesses and resulting malnutrition.
- Food safety helps to keep food fresher for longer, thereby preventing food waste, which is good for the economy.
- Food can be contaminated and unsafe to eat through poor personal hygiene, cross-contamination, incorrect storage, poor cleaning and sanitation.
- Common food contaminants include micro-organisms, chemical hazards and physical hazards.
- The best and most practical strategies to ensure safer food include the five keys:
 - Keep hands and utensils clean when preparing food.
 - Separate raw and cooked food during storage.
 - Cook food thoroughly.
 - Keep food at a safe temperature.
 - Use safe water and safe raw food materials.
- Food safety practices protect both consumers and businesses.

UNIT 5 CONTENT: DRINK PLENTY OF SAFE, CLEAN WATER EVERY DAY

Refer to Guideline 6 in the Pacific Guidelines for Healthy Living, pages 20–21.

Key message

Drink plenty of clean and safe water.

Water

Clean and safe water is essential to life as our bodies are made up of about 50–70% water. Every cell in the body needs water to function properly. For example, water:

- removes waste through sweating, urination and bowel movements
- keeps the body's temperature within the normal range
- lubricates and cushions joints
- protects sensitive tissues.

Not having enough water in your body can lead to dehydration, and even mild dehydration can make you feel tired.

Maintaining fluid balance

Maintaining fluid balance is carefully controlled. We routinely lose water every day when we breathe, sweat, urinate and defecate, and the loss is replaced with water from foods and drinks.

On average, at least 6–8 cups of fluid per day is recommended to match what is lost when you feel thirsty. You will need more if you are:

- **active and sweating.** It is important to drink water before, during and after physical activity. If exercise is intense and lasts more than an hour, a sports drink can replace minerals in your blood (electrolytes) lost through sweat.
- **sweating because of hot or humid weather.**
- **unwell, vomiting, have a fever or diarrhoea.** Drink more water or follow a doctor's recommendation to drink oral rehydration solutions. Other conditions that might require increased fluid intake include bladder infections and urinary tract stones.
- **pregnant and breastfeeding,** as you need additional fluids to stay hydrated.

Safe levels

The general message is "drink plenty of clean water".

To prevent dehydration and make sure your body has the fluids it needs, make water your drink of choice. It is a good idea to:

- drink a glass of water if you're feeling hungry, as thirst is often confused with hunger
- drink water before, during and after exercise
- drink a glass of water with each meal and in between meals.

It is possible to drink too much water. Drinking too much water can dilute the sodium content in your body, especially if your kidneys cannot excrete the excess water. This condition is called hyponatraemia, which can be fatal! You are probably drinking enough water if you rarely feel thirsty and your urine is colourless or light yellow.

Choice of drink

“Clean safe water” should be the first drink of choice. However, this choice is not often an easy choice to make as the available water may not be safe to drink. If in doubt about the quality of drinking water, boil it first and allow it to cool before drinking. Also use boiled water to make ice cubes if you are unsure about the quality of the water. Check that your water supply or source of your water (e.g. water tank, town water supply) is clean and of sufficient quantities.

Readily available options such as fizzy drinks, fruit juices and other sugary drinks are much more attractive, tastier and cheaper, but they can contribute significantly to overall daily energy intake if they contain free sugars. Low calorie drinks and fresh coconut water would be better options.

Sports drinks should only be used if you are exercising intensely for more than an hour and you sweat profusely while exercising. They help to replace electrolytes lost through sweating and are a source of carbohydrates for energy.

Energy drinks are not the same as sports drinks. They contain large amounts of caffeine or other stimulants, sugar and other additives but very little of essential nutrients. These are not recommended.

Foods like vegetables and fruits can also be sources of water, particularly those that contain a lot of water like watermelon.

Group activity

Divide participants into two groups. Groups will have 20 minutes to discuss and develop an action plan for the following scenarios and 5 minutes to present their ideas and plan in plenary.

Scenario 1 – World Water Day celebrates water and raises awareness of many people living without access to safe water. Draft a media release on what the government is doing to ensure every household has access to safe, clean water.

Scenario 2 – To counter the impact of cheap fizzy drinks flooding the local market, prepare a national campaign to promote water as the first drink of choice. How would you know that your campaign is successful?

Summary of Unit 5

- Clean water is critical to life – all of the body's systems need water for proper functioning.
- When the body's fluid balance is not maintained, dehydration results.
- Make water your drink of choice.
- To prevent dehydration, drink water regularly – even before you feel thirsty. Drink 6–8 glasses of water daily.
- Ensure that the family's water supply is safe. Boil water for drinking if needed.
- Advise community members to properly store and use only clean water during and after natural disasters.

LEARNING MODULE 2: TOBACCO, ILLICIT DRUGS AND BETEL NUT

Module 2 overview

This module will examine the health risk factors of tobacco use, drug abuse and betel nut chewing in the local context as part of a holistic approach to healthy living in the Pacific.

Learning units

Module 2 covers the guidelines that specifically relate to tobacco, drugs and betel nut chewing. Each topic is covered separately.

- Unit 2.1 – Tobacco
- Unit 2.2 – Drugs
- Unit 2.3 – Betel nut

Learning objectives

After completing this module, participants will be able to:

- communicate the health risks associated with the use of tobacco, drug and betel products to the general public
- identify ways to address the socio-economic and environmental costs of tobacco use, other drugs and betel nut
- implement and evaluate cost-effective interventions for tobacco use
- use the provisions in the legal framework for the convention on tobacco control (WHO FCTC) to strengthen tobacco legislations
- collaborate with leading stakeholder(s)/partners to combat the harmful effects of tobacco use, drugs and betel nut chewing.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook, pages 21–23
- PowerPoint presentations provided
- Tobacco factsheet <http://purl.org/spc/digilib/doc/s4ztm>
- *Live Healthy, Stay Healthy: Your Wellness Challenge* <http://purl.org/spc/digilib/doc/5p2xy>
- *Healthy Living, Healthy Life* <http://purl.org/spc/digilib/doc/jo8ya>
- SPC resources such as posters and information booklets, which are also available from the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the session to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *Should tobacco products be banned from our shores? Why or why not?*
 - *What are some of our traditional practices or taboos around tobacco smoking/betel nut/drugs and how have they influenced how people behave towards tobacco smoking?*
 - *What are the benefits and challenges of quitting smoking that you are aware of?*
 - *How do you see your role in tobacco control?*
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

UNIT 2.1 CONTENT: TOBACCO

Refer to Guideline 7 in the Pacific Guidelines for Healthy Living, pages 21–23.

Key messages

- There is no safe level of smoking. If you are smoking, stop, and if not, don't start!
- Stop smoking!

Tobacco smoking

The prevalence of cigarette smoking across the Pacific Island countries ranges from 3 to 75%.

Tobacco use has been identified as a risk factor for six out of eight leading causes of death globally that include:

- heart disease
- stroke
- lower respiratory infections
- chronic obstructive pulmonary disease
- tuberculosis
- cancers of the lung, trachea and bronchus.

To help reduce the above diseases, we need to actively support anti-tobacco work.

Nicotine is a drug found naturally in tobacco, and is an addictive substance like cocaine, which, with regular use over time, causes physical and emotional dependence. This makes it difficult for smokers to quit smoking.

CHEMICALS CONTAINED IN SECOND-HAND TOBACCO SMOKE (PARTIAL LIST)



**More than 4 000 chemicals
have been identified in tobacco smoke.**

Effects of smoking

Smoking can kill you and cause harm to the health of those near you.

Toxic ingredients in cigarette smoke travel throughout the body, causing damage in several different ways. Nicotine reaches the brain within 10 seconds after smoke is inhaled. It has been found in every part of the body and in breastmilk.

- Carbon monoxide binds to haemoglobin in red blood cells, preventing affected cells from carrying a full load of oxygen.
- Carcinogens in tobacco smoke damage important genes that control the growth of cells, causing them to grow abnormally or to reproduce too rapidly.
- Smoking affects the working of the immune system and may increase the risk of respiratory and other infections.
- Tobacco is the single greatest preventable cause of death in the world today, killing up to half the people who use it.

Active smoking: The effects on health

- **Smoking causes cancer.** Cancer was among the first diseases found to be caused by smoking. Cigarette smoking causes most cases of lung cancer. Smokers are about 20 times more likely to develop lung cancer than non-smokers.
- **Smoking causes heart disease and strokes.**
- **Babies whose mothers smoke during pregnancy are harmed** – they have a less healthy weight and have a greater risk of infant death and disease.
- **Smoking harms nearly every organ of the body,** causing many diseases and reducing the health of smokers in general.
- The **list of diseases caused by smoking** has been expanded to include abdominal aortic aneurysm, acute myeloid leukaemia, cataracts, cervical cancer, kidney cancer, pancreatic cancer, periodontitis, pneumonia and stomach cancer. These are in addition to diseases previously known to be caused by smoking, including bladder, laryngeal, lung, oesophageal, oral and throat cancers; chronic lung diseases; and coronary heart and cardiovascular diseases. There are also reproductive effects and sudden infant death syndrome (SIDS).
- **Low tar cigarettes do not help.** Smoking cigarettes with lower machine-measured yields of tar and nicotine provide no clear benefit to health.
- **Quitting smoking has immediate as well as long-term benefits,** reducing the risks of getting diseases caused by smoking and improving health in general.

Second-hand smoke: The effects on health

- **When a person smokes near you, you breathe “second-hand smoke”.** Second-hand smoke is the combination of smoke from the burning end of the cigarette and the smoke breathed out by smokers. When you breathe in second-hand smoke, it is just as if you are smoking.
- **There is no safe amount of second-hand smoke.** Breathing in even a little second-hand smoke can be dangerous for your health.
- **Babies are hurt by second-hand smoke.** Tobacco smoke harms babies before and after they are born. Unborn babies are hurt when their mothers smoke or if others smoke around their mothers. Babies may also breathe second-hand smoke after they are born. Babies under 1 year old are in the most danger. Babies whose mothers are around second-hand smoke are more likely to have lower birth weights and lung problems.

- **Second-hand smoke is a known cause of SIDS.** The sudden, unexplained, unexpected death of an infant before the age of 1 year is known as SIDS. Mothers who smoke while pregnant are more likely to have their baby die of SIDS. After they are born, babies who are around second-hand smoke — from their mother or anyone else — are also more likely to die of SIDS than children who are kept safe from second-hand smoke.
- **Older children are affected too.** They are more likely to have lung problems, ear infections and severe asthma from being around second-hand smoke.
- **Second-hand smoke causes lung cancer.** Second-hand tobacco smoke contains the same cancer-causing chemicals that smokers inhale. Because of this, second-hand smoke causes lung cancer in adults who do not smoke. Breathing in second-hand smoke at home or at work increases the chances of getting lung cancer by between 20 and 30%.
- **Second-hand smoke causes heart disease and heart attacks.** Breathing second-hand smoke makes the platelets in your blood become more “sticky” — just like those of a regular smoker. Even a short time in a smoky room causes your blood platelets to stick together. Second-hand smoke also damages the lining of your blood vessels; these bad changes can cause a deadly heart attack.



Tobacco terminology

Burning tobacco produces a complex mixture that contains several thousand substances in the form of gases and very small particles. The precise content of tobacco smoke varies according to factors such as:

- the temperature at which it is burnt
- the tobacco content
- additives that may have been added during manufacture
- the type of paper wrapper used (for a cigarette)
- the type of filter used (if any).

Second-hand smoke is the term commonly used to describe the ambient smoke (smoke in the surrounding air) that is a by-product of active smoking. It consists of smoke that has been exhaled by the smoker (exhaled **mainstream smoke**) and smoke drifting from the smouldering tip of the cigarette (sidestream smoke).

Sidestream smoke accounts for about 90% of the mix because smokers generally take only a few puffs from a cigarette, which may burn for some minutes. Overall, sidestream smoke varies little with the type of cigarette smoked.

Smaller amounts of smoke also reach the environment by diffusion through the cigarette paper and from the mouthpiece of the cigarette. Because most tobacco is smoked in the form of cigarettes, cigarettes are the major source of second-hand smoke. Other forms of smoking tobacco, such as cigars, pipes, kreteks and bidis, also produce second-hand smoke.



- Mainstream smoke and sidestream smoke are chemically similar, but mainstream smoke undergoes some changes because of the process of inhalation.

- The action of inhaling through the mouthpiece of a cigarette creates airflow, which makes the tobacco burn at a higher temperature. Some constituents of the smoke are absorbed or retained in the smoker's lung tissue before exhalation.
- Sidestream smoke, produced at the burning end of the cigarette between puffs, is usually formed at a lower temperature, leading to incomplete combustion. This results in a greater quantity of compounds being released into sidestream smoke than mainstream smoke, per cigarette.
- We know from experiments funded by a tobacco company during the 1980s that the very small particles in inhaled fresh sidestream smoke is three to four times as toxic per gram compared with mainstream cigarette smoke.
- We also know that the toxicity of sidestream smoke increases by a further two to four times as it ages, and some research suggests that aged sidestream smoke is approximately 12 times more toxic than mainstream smoke.



Although exposed non-smokers may inhale a smaller volume of smoke than smokers, the smoke to which they are exposed is much more toxic than the smoke inhaled by smokers. This helps us understand the relatively large effects of second-hand smoke on the body.

Manufactured loose tobacco: The effects on health

Manufactured loose tobacco, hand-rolled into cigarette paper and smoked with or without a filter, causes the same range of diseases as smoking manufactured cigarettes. Variations in the quantity of tobacco used per cigarette and filtration make measurements of individual exposure more difficult to assess, but the directly comparable exposure to harmful constituents and the method of consumption means that smokers of these products have at least an equivalent risk of developing disease as do smokers of conventional cigarettes.

Chewing tobacco and other smokeless tobacco products: The effects on health

Smokeless tobacco products (STPs) are those intended to be sucked, chewed or inhaled by the user, rather than burnt. In oral use, nicotine from prepared tobacco leaf is absorbed through the lining of the mouth, and in nasal use, through the lining of the nose. Use of these substances is responsible for a significant proportion of the overall burden of morbidity and mortality due to tobacco use.

The market for smokeless tobacco continues to expand, through promotions aimed at:

- smokers subject to smoking bans who are looking for another way to get access to nicotine
- women living in societies in which smoking is not seen as socially acceptable
- the youth market.

Chewing tobacco is available in several varieties, including loose leaf, plug tobacco and twist chewing tobacco. For example, in Palau, Papua New Guinea and Solomon Islands, tobacco is commonly chewed in combination with other substances, such as betel leaf (paan), areca nut and lime. STPs tend to be less expensive than cigarettes, and are often flavoured and sweetened to improve palatability, which adds to their appeal to the youth market.

STPs are addictive and their use is hazardous to health; withdrawal symptoms are broadly similar to those seen in smokers. Evidence on the effectiveness of an STP as a smoking cessation aid is insufficient, and relative trends in progression from STP into and from smoking vary. It is thus not possible to extrapolate the patterns of tobacco use from one country where oral tobacco is available to other countries.

All STPs contain nicotine, a potent addictive substance. They also contain carcinogenic tobacco-specific nitrosamines, albeit at differing levels. STPs are carcinogenic to humans, and the pancreas has been identified as a main target organ. All STPs cause localised oral lesions, and a high risk of developing oral cancer has been shown for various STPs. There is also evidence of an increased risk of fatal heart attack among STP users.

Effective tobacco control interventions

The *WHO Framework Convention on Tobacco Control (WHO FCTC)* is an international treaty designed to combat the tobacco epidemic, outlining specific actions national governments can implement to control tobacco use.

The core **demand reduction provisions** in the WHO FCTC are contained in articles 6–14:

- price and tax measures to reduce the demand for tobacco, and
- non-price measures to reduce the demand for tobacco, namely:
 - protection from exposure to tobacco smoke
 - regulation of the contents of tobacco products
 - regulation of tobacco product disclosures
 - packaging and labelling of tobacco products
 - education, communication, training and public awareness
 - tobacco advertising, promotion and sponsorship
 - demand reduction measures concerning tobacco dependence and cessation.

The core **supply reduction provisions** in the WHO FCTC are contained in articles 15–17:

- illicit trade in tobacco products
- sales to and by minors
- provision of support for economically viable alternative activities.

The *Pacific NCD Roadmap* also identifies the following cost-effective “best buys” interventions for tobacco control:

- Tax increase; specifically increase excise tax to $\geq 70\%$ of the retail price of cigarettes
- Smoke-free environments to include health-care facilities, education facilities other than universities, universities, indoor offices and workplaces not considered in other categories, restaurants or facilities that serve mostly food, cafes, pubs and bars or facilities that serve mostly beverages, and public transport
- Health information and warnings with principal display 51% or greater expressed in pictorial form and principal language(s)
- Tobacco advertising, promotion and sponsorship bans, with legislation that completely bans ALL forms of direct and indirect advertising as listed:
 - direct advertising:
 - national TV and radio
 - local magazines and newspapers
 - billboards, outdoor advertising
 - point of sale
 - retailers and sellers of tobacco must store all tobacco products out of sight.

- indirect advertising:

- free distribution of tobacco products in the mail or through other means
 - promotional discounts
 - non-tobacco goods and services identified with tobacco brand names (brand extension)
 - brand names of non-tobacco products used for tobacco products (brand sharing)
 - sponsored events, including corporate social responsibility programmes
 - appearance of tobacco brands or products in television and/or films (product placement).
- Restrictions on tobacco sales and licensing and government-level policies to prevent tobacco industry interference.

Tobacco Free Pacific 2025 – Healthy Islands are Tobacco Free Islands

- Tobacco Free Pacific 2025 (TFP2025) is a regional initiative that was endorsed at the Pacific Health Ministers Meeting in 2013, launched in 2014 and supported by the 22 Pacific countries.
- The ultimate goal is to help reduce the NCD burden by attaining a target of < 5% current tobacco use among adults by 2025.
- The four risk factors for NCDs are tobacco use, unhealthy diet, alcohol misuse and physical inactivity. Of these, tobacco use is the most preventable of the leading causes of death and disease in the Pacific, including cancers, diabetes, and cardiovascular and respiratory disease.
- Addressing tobacco use through tobacco control measures has the potential to make a significant difference in improving outcomes from NCDs. In addition, tobacco control interventions often require multi-sectoral approaches.

MPOWER

To help countries fulfil the promise of the WHO FCTC and turn this global consensus into a global reality, WHO has produced the MPOWER policy package.

MPOWER strategies

MPOWER is designed to build on the measures of the WHO FCTC that have been proven to reduce smoking prevalence. WHO FCTC and MPOWER incorporate interventions of proven effectiveness.

QUIT or tobacco cessation programmes

A key point to note is that a vast majority of people who manage to quit tobacco do so without special help and without nicotine replacement therapy. Not every country can afford to provide nicotine replacement therapy for people who want to quit smoking.

Alternative tobacco cessation interventions are also available.



Monitor

Monitor tobacco use and prevention policies



Protect

Protect people from tobacco smoke



Offer

Offer help to quit



Warn

Warn about the dangers tobacco



Enforce

Enforce bans on tobacco advertising, promotion and sponsorship



Raise

Raise taxes on tobacco

The stages of change model is a useful model to help understand the different steps people go through to change their behaviour:

- identify the person's stage
- choose stage-appropriate interventions
- understand the change process.

People trying to quit are not all the same. For example, some are not quite ready to think about quitting (*precontemplation*), some have it very much on their minds (*contemplation*), others are involved in making their plans (*preparation*) and attempts to quit (*action*), others are trying to "stay stopped" (*maintenance*), while some may not have succeeded this time and are in the process of working up to their next attempt to quit (*recycling, relapse*). These phases are sometimes called the "stages of change" or the transtheoretical model.

The transtheoretical model can be used for broad-based communication programmes and resources that reach wide audiences by specifying a target audience according to their stage of/readiness for change. For example, a set of messages for a brochure or for a public service announcement on the radio may be designed to get those people already thinking about quitting to move to the preparation/action stages. Refer to Annex 2 for details on the stages of change model.

Group activity

1. *Divide participants into four groups and assign each group one of the following activities*
 - (a) *Prepare a one-page briefing paper for the newly elected Minister of Health on the status of WHO FCTC actions with a particular focus on increasing taxes on tobacco products and allocation of revenue collected from health promotion action(b)*
 - (b) *Draft a news article on emerging cigarette products and their negative effects on health to be published in your monthly church newsletter.*
 - (c) *Our leaders have called for a tobacco-free Pacific by 2025. Prepare a brief progress report for the Minister of Health on actions toward this target. Provide success stories and outline key challenges with recommendations on how the minister can help.*
 - (d) *Prepare key points to be included in a submission to Cabinet requesting a review of existing tobacco control legislation to include provisions to counter tobacco industry interference (FCTC article 5.3 on effective implementation of WHO FCTC).*

Each group will have 20 minutes to prepare an outline of their paper and present their ideas in plenary.

UNIT 2.2 CONTENT: DRUGS

Refer to Guideline 7 in the Pacific Guidelines for Healthy Living, pages 21–23.

Drugs

A drug is any substance (other than food) that when inhaled, injected, smoked, ingested, absorbed via a patch on the skin, or dissolved under the tongue causes a temporary physiological (and often psychological) change in the body.

Abuse and addiction

Drug abuse and drug addiction are two different conditions.

Drug **abuse** is the inappropriate use of chemical substances (e.g. alcohol or pharmaceuticals – both prescribed and over-the-counter prescription drugs) and any use of illicit drugs such as cocaine, ice or marijuana.

It can be a one-time use and quickly dropped or can become something more serious. It can be a sign of a relapse or a moment of weakness.

Abuse comes in many forms and may include:

- taking more of something than prescribed
- ingesting something with the intention to “get high”
- using someone else’s prescription
- causing harm to oneself or others while under the influence of a substance
- experiencing legal, familial or work-related problems as a result of substance use.

Drug **addiction** is defined by the American Society of Addiction Medicine as “a primary, chronic disease of brain reward, motivation, memory and related circuitry”. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations.

Drug addiction is characterised by:

- experiencing withdrawal symptoms without the substance
- withdrawing from friends and family, or feeling “disconnected” from life
- loss of interest in old activities, work, friends and other pursuits
- continued use of a substance, despite experiencing negative consequences such as physical problems, legal problems, or other difficulties.

Drugs that are abused

The most common legal drugs include:

- over-the-counter drugs (e.g. alcohol and cigarettes)
- prescribed (e.g. methadone, oxycodone and zolpidem)
- chemical (e.g. inhalants).

The most common illegal drugs include:

- marijuana
- opiates (e.g. heroin)
- stimulants (e.g. methamphetamines and cocaine)
- hallucinogens (e.g. acid).

Recommendations for preventing harmful use of drugs

There are no safe levels with illicit drugs – stopping is the best advice.

Follow the prescription advice from health professionals.

Group activity

Divide participants into three groups and assign each group to one of the following scenarios. Groups will have 30 minutes to discuss their ideas and draft outline of their plan to be presented in plenary. As a group, describe how you would go about developing a response for your given scenario. Consider the principles for behaviour change communication in Annex 2 to guide your planning.

Scenario 1 – You have been asked to provide a short briefing for an incoming Minister of Police on the health impact of illicit drugs. Include two key recommendations in your briefing with justifications.

Scenario 2 – You have been invited to give a talk to Year 12 high school students on the dangers of illicit drugs. Describe how you communicate the key messages in this guideline to this target group.

Scenario 3 – Conduct a community consultation on the new legislation that is being submitted to parliament on controlling the illegal trade of methamphetamines and other drugs. Interested parties in the consultation include community leaders, women's groups, leaders of rival youth groups, enforcement officers, etc. Describe the engagement process you would undertake to ensure that the voices of these various groups are heard.

UNIT 2.3 CONTENT: BETEL NUT

Refer to Guideline 7 in the Pacific Guidelines for Healthy Living, pages 21–23.

Betel nut

Areca nut (betel nut) is a carcinogen with or without tobacco.

Betel nut is a product that is consumed in its own right, with or without tobacco. It is the seed of the areca palm, which grows in much of the tropical Pacific, Asia and parts of east Africa. It is commonly referred to as betel nut because it is often wrapped in betel leaves before being chewed.



Areca nuts are chewed with betel leaf and slaked lime for their effects as a mild stimulant, causing a warming sensation in the body and slightly heightened alertness, although the effects vary from person to person.

Betel nut chewing is common in the Marshall Islands, Guam, the Commonwealth of the Northern Mariana Islands, Solomon Islands, Vanuatu and Papua New Guinea.

Many chewers also add small pieces of tobacco leaf to the mixture, thereby adding the addictive effects of nicotine. The International Agency for Research on Cancer regards the chewing of betel nut to be a known human carcinogen. Many studies provide evidence for the cancer-causing effects of betel nut without tobacco for oral cancer and with tobacco for cancers of the oral cavity, pharynx and oesophagus.

Health concerns

The use of betel nut is associated with combinations of both immediate and long-term physiological effects. Habitual use of betel nut has been associated with a number of long-term adverse health effects such as oral cancer.

Associated with chewing betel nut is the habit of spitting. Saliva hosts a variety of diseases and infections including hepatitis, tuberculosis and viral meningitis.



Recommendations

If you do not chew betel nut, do not start!

If you chew, *stop chewing* is the best advice!

Ways to help prevent betel nut chewing

There is currently no recommendation for betel nut chewing other than what is presented here. Betel nut is freely available in the countries where chewing is practised. Refer to page 23, *Pacific Guidelines for Healthy Living*; note that this is not an exhaustive list.

Group activity

Case study – Betel nut chewing is a common practice in your community, even the Minister of Health and several other government ministers chew. It's a big money earner, especially for the small businesses in the community. Restricting sales of betel nut is identified as a priority in the National NCD Plan of Action.

Task: Divide participants into two groups. Each group will have 10 minutes to discuss a plan of action to address the issue and 5 minutes to pitch their idea to the other group, who will provide feedback and suggestions on how to improve the plan.

How would you go about convincing the government to establish and enforce legislation to restrict the sale and use of betel nut in schools and health-care and government facilities? Consider the principles of behaviour change communication in Annex 2 as a guide.

Summary of Module 2

- Tobacco, drugs and betel nut can cause physical and emotional dependence (addiction) when taken regularly.
- Commonly abused drugs include alcohol and tobacco/cigarettes and illegal drugs such as cocaine, heroin, marijuana and methamphetamines.
- Addiction can cause long-term health problems that are specific to each product.
- Tobacco use is a risk factor for six of the eight leading causes of death globally.
- The benefits of quitting smoking is that it decreases the risk of diseases such as lung cancer, stroke and chronic lung diseases, and low birth weight babies for pregnant women.
- Drug addiction is defined as “a primary, chronic disease of brain reward, motivation, memory and related circuitry”. Dysfunctions in these circuits lead to characteristic biological, psychological, social and spiritual manifestations.
- Habitual use of betel nut has been associated with long-term adverse health effects such as oral cancer, diabetes mellitus, poor pregnancy outcomes and mental illness.
- There are no safe levels with these products – stopping is the best advice.

LEARNING MODULE 3: ALCOHOL, HOME BREW AND KAVA

Module 3 overview

Alcoholic and kava drinks are classified as depressants. They slow down vital functions of the body resulting in slurred speech, unsteady movement, disturbed perceptions and an inability to react quickly. The best way to describe how alcohol, home brew and kava affect the mind is that they reduce a person's ability to think rationally and distort his or her judgement.

Excessive intake of both causes even more severe depressant effects, including the inability to feel pain; toxicity, where the body vomits the poison; and finally unconsciousness or, worse, coma or death from severe toxic overdose. These reactions depend on how much and how quickly the drinks are consumed.

Pacific people who drink alcohol and kava tend to drink until intoxicated!

Learning units

Module 3 covers the guidelines that specifically relate to alcohol, home brew and kava in the *Pacific Guidelines for Healthy Living*. Each topic is covered separately.

- Unit 3.1 – Alcohol
- Unit 3.2 – Home brew
- Unit 3.3 – Kava

Learning objectives

After completing this module, participants will be able to:

- explain the effects of alcohol and kava on the body
- know the recommended amount of alcoholic drinks for various population groups
- describe the social and economic risks associated with alcohol and kava consumption
- adapt and implement cost-effective alcohol control interventions
- develop appropriate information for different target groups for educational and intervention purposes
- collaborate with leading stakeholder(s)/partners to combat the harmful effects of alcohol misuse, kava and home brew.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook, pages 24–25
- PowerPoint presentations provided
- Alcohol factsheet <http://purl.org/spc/digilib/doc/uvkj4>
- *Live Healthy, Stay Healthy: Your Wellness Challenge* <http://purl.org/spc/digilib/doc/5p2xy>
- *Healthy Living, Healthy Life* <http://purl.org/spc/digilib/doc/jo8ya>
- SPC resources such as posters and information booklets, which are also available on the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the session to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *What are the factors contributing to alcohol-related problems in your community?*
 - *Are there laws in your country to control alcohol use and how effective are they? Are laws the answer to the alcohol-related problems you see in your country? Why or why not?*
 - *What is your role in addressing alcohol-related problems?*
 - *Is kava a traditional drink in your country and how is it traditionally used?*
 - *Describe any change in the way kava is being used. Has it changed for the better or worse and how?*
 - *Is kava promoted as a cash crop for export in your country?*
 - *How is this controlled or managed?*
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

UNIT 3.1 CONTENT: ALCOHOL

Refer to Guideline 8 in the Pacific Guidelines for Healthy Living, pages 24–25.

Alcohol

Alcohol is produced through a process of fermentation involving sugar, yeast and starches (e.g. fruits and grains). Ethanol is the type of alcohol that is present in alcoholic beverages.

The other types of alcohol – methyl, propyl and butyl – are commonly used as solvents and in the manufacturing of industrial and household detergents and can cause blindness and death if consumed even in small amounts.

Risks associated with alcohol use

While there is individual variability in how people respond to alcohol consumption, there is no amount of alcohol that can be said to be safe for everyone. There is always some risk to the drinker's health and social well-being.

People's perception of how much alcohol they can "handle" can lead them to believe that they are able to drink more without harm. Such a perception is misleading.

Factors that affect individual susceptibility to alcohol include the following:

- **Gender** – because women tend to have a smaller body size, the same amount of consumed alcohol leads to a higher blood alcohol concentration (BAC) in women than in men.
- **Age** – in general, younger people are less tolerant of alcohol and have less experience of drinking and its potential effects. Adolescence is often a time characterised by risk-taking behaviours, including risky drinking. At older ages, people's tolerance for alcohol decreases; as people age, there is increased risk of driving accidents, falls and adverse reactions with medications.

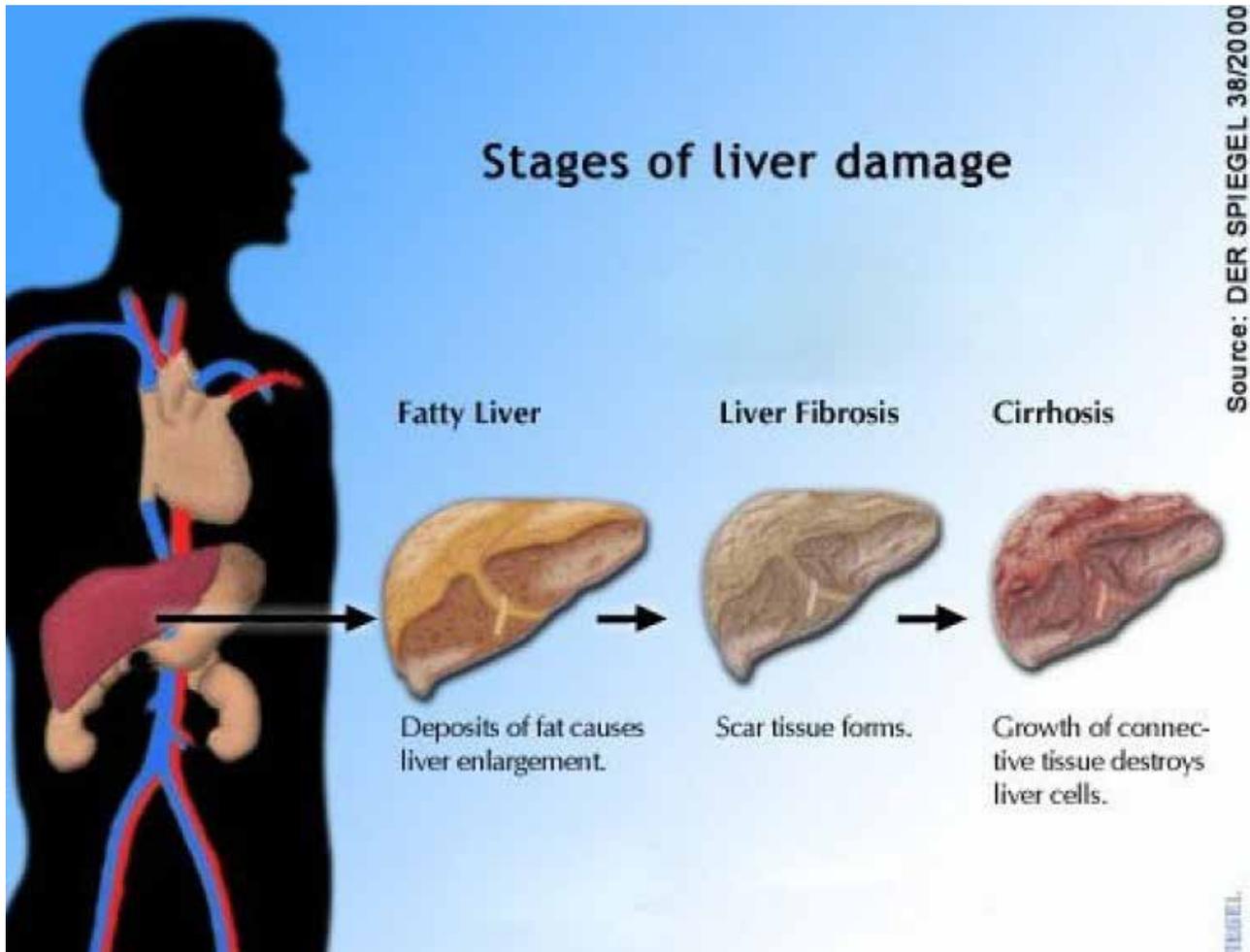
- **Mental health** – people with, or prone to, mental health conditions (such as anxiety, depression and schizophrenia) may have worse symptoms after drinking alcohol. Alcohol can trigger mental health conditions in people who are already prone to them.
- **Family history** – people who have a family history of alcohol dependence (particularly among very close relatives) have an increased risk of developing dependence themselves.

Health effects: Immediate to short term (hours)

- Alcohol starts to affect the brain within about 5 minutes of being swallowed.
- **Blood alcohol concentration (BAC)**
 - BAC refers to the amount of alcohol in the bloodstream.
 - A BAC of 0.05 means the person has 0.05 g of alcohol in every 100 ml of blood.
 - BAC is measured with a breathalyser or by analysing a sample of blood.
 - The BAC reaches its peak about 30–45 minutes after the consumption of one standard drink (10 g alcohol). As the liver metabolises alcohol at a rate of about three-quarters of a standard drink per hour, the BAC drops over time, unless more alcohol is consumed.
- Rapid consumption of multiple drinks results in a higher BAC because the liver's metabolism works at a fixed speed, regardless of how many drinks are consumed.
- It takes about an hour for the body to clear one standard drink, although this varies from person to person, depending on liver size, body mass and composition, alcohol tolerance and genetic factors.
- Difficulty walking, blurred vision, slurred speech, slowed reaction times, and impaired memory are among the effects that alcohol may have on the brain. Some of these impairments are detectable after only one or two drinks and may go away quickly when the person stops drinking. Someone who drinks heavily over a long period of time may incur brain impairment that is longer lasting or permanent.

Health effects: Cumulative

- Alcohol affects every organ in the body.
- It is a central nervous system depressant that is rapidly absorbed from the stomach and small intestine into the bloodstream.
- The intensity of the effect of alcohol on the body is directly related to the amount consumed.
- Excessive drinking, both in the form of heavy drinking or binge drinking, is associated with numerous health problems, including:
 - chronic diseases such as liver cirrhosis (damage to liver cells)
 - pancreatitis (inflammation of the pancreas)
 - various cancers, including larynx (the voice box), liver, mouth, oesophagus and throat
 - high blood pressure
 - excess body weight and malnutrition
 - psychological disorders
 - unintentional injuries, such as motor-vehicle crashes, falls, drowning, burns and firearm injuries
 - violence, such as child maltreatment, homicide and suicide
 - harm to a developing fetus if a woman drinks while pregnant, such as fetal alcohol spectrum disorder
 - SIDS
 - alcohol abuse or dependence.



Social and economic risks

- Alcohol causes substantial harm to individual health and family well-being, increases crime and social disruption, and results in economic loss through lost productivity.
- Alcohol consumption by young adults as well as heavy or excessive alcohol drinking is also a concern.
- Studies also showed a strong positive relationship between alcohol consumption, the commission of crimes, and being victims of criminal behaviour for both adolescent and young males and females.
- There is evidence to suggest that violent assaults tend to occur around liquor outlets (bars, nightclubs, hotels, shops with liquor licences), especially when there are a lot of such outlets close together.
- Greater numbers of alcohol outlets within a neighbourhood may also:
 - indicate a community where violence is condoned/accepted
 - encourage couples at risk of inter-partner violence (IPV) to drink
 - provide environments where groups of persons at risk of IPV may gather and form and mutually reinforce IPV-related attitudes, norms and problem behaviours.
- There is good evidence that increasing the time of legal sales leads to increases in excessive alcohol consumption and alcohol-related damage, and that reducing the number of days/hours that alcoholic beverages are sold generally decreases alcohol-related damage.

Recommendations

Standard drink

A standard drink is a unit of measure to define the amount of pure alcohol consumed and is a way of tracking the amount of alcohol people consume. One standard drink always contains 10 g of alcohol, regardless of container size or alcohol type (i.e. beer, wine or spirits).

Examples of a standard drink:

- 1 glass beer (285 ml, 5% strength)
- 1 glass beer (375 ml, light, < 5% strength)
- 1 small glass wine (100 ml)
- 1 single measure of spirits; e.g. vodka, gin (30 ml)



WHO does not currently define any safe level of alcohol intake. Many countries have produced recommendations for alcohol intake but they vary from country to country, reflecting the uncertainties among scientific experts on the appropriate levels of consumption that would be consistent with healthy behaviours.

It is prudent, therefore, to consider these recommendations for the following various population groups.

Guidelines for healthy men and women

- Drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.
- Drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion.

Guidelines for children and young people

- For children and young people under 18 years of age, not drinking alcohol is the safest option.
- Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking, and that, for this age group, not drinking alcohol is especially important.
- For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible.

Guidelines for pregnancy and breastfeeding

- Maternal alcohol consumption can harm the developing fetus or breastfeeding baby.
- For women who are pregnant or planning a pregnancy, not drinking is the safest option.
- For women who are breastfeeding, not drinking is the safest option.

Effective alcohol control interventions

The *Pacific NCD Roadmap* and the *WHO Global Strategy to Reduce the Harmful Use of Alcohol* identified the following effective interventions for the harmful use of alcohol:

- Taxation increase, specifically an inflation-adjusted excise taxation system on beer, wine and spirits, with the excise tax based on ethanol content and applied across all alcoholic beverage types, reviewed and adjusted annually
- Restrictions on access to retailed alcohol, specifically licensing regulations that are put in place to restrict sales of alcohol, with all producers, importers and wholesalers required to hold a licence
- Regulations on alcohol advertising that are put in place with a system to detect infringements
- Enforcement of drink driving laws
- Brief interventions for hazardous drinking
- Government monopolies for retail sale of all alcoholic beverages
- Restrictions on outlet density
- Restrictions on days and hours of sale
- Minimum purchase age
- Lower legal BAC levels for driving (maximum BAC at 0.05 g/100 ml) and lower BAC for young drivers as compared with older drivers
- Random breath testing
- Brief advice programmes
- Treatment for alcohol use disorders.

UNIT 3.2 CONTENT: HOME BREW

Refer to Guideline 8 in the *Pacific Guidelines for Healthy Living*, pages 24–25.

What is home brew?

Home brew refers to the small-scale, non-commercial manufacture of beer for personal use.

In the Pacific, brewing at home is practised by young men in both rural and semi-urban communities. Young men often cannot afford commercially produced beer, hence they tend to resort to brewing beer at home.

The concern about home brew

Like commercially made beer, home brew can also be misused.

The safety of home brew is a huge concern in the Pacific Islands because it is unregulated and therefore there is no product standard. In other words, making home brew is illegal.

There have been instances such as in Fiji when deaths of young men have occurred as a result of consuming home brew. In this case, the ingredients and the way the brew had been made were the problem. It was determined that both alcohol levels and safety aspects contributed to health problems and death.

UNIT 3.3 CONTENT: KAVA

Refer to Guideline 8 in the Pacific Guidelines for Healthy Living, pages 24–25.

Kava is a drink made from *Piper methysticum* extract, a plant native to the western Pacific Islands. The name “kava” comes from the Polynesian word “awa”, which means bitter.

It contains compounds known as kavalactones, which are fat soluble compounds that are responsible for kava’s psychoactive qualities.

Why should we worry about excessive kava drinking?

Kavalactones in kava are believed to have the following effects on the body:

- relaxes muscles and induces sleepiness
- reduces anxiety
- reduces pain sensation.

Long-term use can lead to a range of health problems including malnutrition, weight loss and apathy.

Kava affects drinkers differently depending on:

- a person’s size, weight and health
- whether the person is used to taking it
- whether other drugs are taken around the same time
- the amount taken
- the strength of the kava mix.

Recommendations for the safe use of kava

There has been little research in this area. However, it is safe to say that there is no safe level of kava use. The general key health promotion message needs to focus on minimising the risks associated with the effect of kava drinking.

One shell (half a coconut shell) is the usual local measure. However, the strength of the kava mix needs to be considered when drinking.

Safety aspects also need to be highlighted. These include:

- the use of safe, clean water for mixing and clean cloths and mixing bowls
- using individual coconut shell or cups for drinking.

Group activity

Divide participants into four groups and ask them to prepare a plan of how they would address one of the following activities.

Groups 1 and 2 – Develop a resource to help the police raise awareness of the harms of alcohol misuse among adolescent boys and girls on the island. Consider the information in Annex 2 on behaviour change communication as a guide. You have 20 minutes to prepare how you would go about developing this resource, identify the key stakeholders you would work with and key information to be included in the resource, etc., and 5 minutes to present your plan to the other group for their feedback and input.

Groups 3 and 4 – Advocate for the development of legislation to control the marketing and sale of kava. Discuss how you would do this and consider who the “winners” and “losers” would be if the government agrees to develop such a piece of legislation. You have 20 minutes to prepare and 5 minutes to present your ideas to the other group for their feedback and input.

Summary of Module 3

- Alcohol affects every organ of the body.
- Excessive and prolonged alcohol drinking is associated with numerous health problems.
- People’s perception of how much alcohol they can drink cannot be trusted.
- Over-consumption reduces a person’s ability to think rationally and distorts judgement.
- Long-term alcohol abuse poses great dangers to the user’s physical, mental, emotional, social and spiritual health; has serious consequences for his or her career, family and friends; and can cause irreversible damage to his or her body organs and systems.
- Drinking unsafe home-produced alcohol can cause death.
- Kava drinking is increasingly being used as a way of dealing with work stress.
- Regular use of large amounts of kava has short-term and long-term effects and may cause a number of health problems such as malnutrition, severe weight loss, chest pain, shortness of breath, dry, scaly skin and a lowered immune system (getting infections easily, etc.).

LEARNING MODULE 4: PHYSICAL ACTIVITY

Module 4 overview

This module focuses on the benefits of physical activity and encourages people to be active.

Learning unit

This module is taught as a single unit focusing on the promotion of physical activity.

Learning objectives

After completing this module, participants will be able to:

- explain the benefits and risks associated with physical activity and sedentary behaviour
- translate the technical terms used in physical activity into simple language for the communities to understand
- apply the principles of behaviour change communication to develop targeted physical activity programmes
- work with other key partners and stakeholders to promote physical activity suitable for the different age groups.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook, pages 18–20
- PowerPoint presentations provided
- *Pacific Physical Activity Guidelines for Adults*
http://www.who.int/dietphysicalactivity/publications/pacific_pa_guidelines.pdf
- *Live Healthy, Stay Healthy: Your Wellness Challenge* <http://purl.org/spc/digilib/doc/5p2xy>
- SPC resources such as posters and information booklets, which are also available on the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the session to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *How would you define “physical activity”, exercise or sports?*
 - *What are some of the traditional practices around physical activity and how have they influenced your behaviour?*

- From your experience, how well are the recommendations to be physically active being adopted by people? Justify your answer.
 - What are some of the barriers you see to physical activity and how can they be addressed?
 - What are some of the traditional activities that can be considered and used as part of physical activity?
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

MODULE 4 CONTENT: PHYSICAL ACTIVITY

Refer to Guideline 5 in the Pacific Guidelines for Healthy Living, pages 18–20.

Key messages

- Do at least 30 minutes of moderate-intensity physical activity on five or more days each week.
- Regular physical activity is an important part of a healthy lifestyle; everyone benefits from being physically active.

What is physical activity?

Simply put, physical activity is any movement made by the body. It includes the everyday things we do that involve moving around at home, at work and in our leisure time. Physical activity can be described in several terms:

- **Frequency (how often)** – the number of times an exercise or activity is performed, generally expressed in sessions, episodes or bouts per week.
- **Intensity (how hard a person works to do the activity)** – the rate at which the activity is being performed or the magnitude of effort required to perform an activity or exercise.
- **Time (duration, how long)** – the length of time in which an activity or exercise is performed, generally expressed in minutes.
- **Type of physical activity (what type)** – the mode of participation; e.g. aerobic (walking, running, swimming); muscle and bone strengthening (weight training, functional training, push-ups); and stretching.
- **Volume (how much in total)** – total volume of physical activity over a given period of time; e.g. 2.5 hours/week (30 minutes a day for 5 days a week).

Other terms associated with physical activity

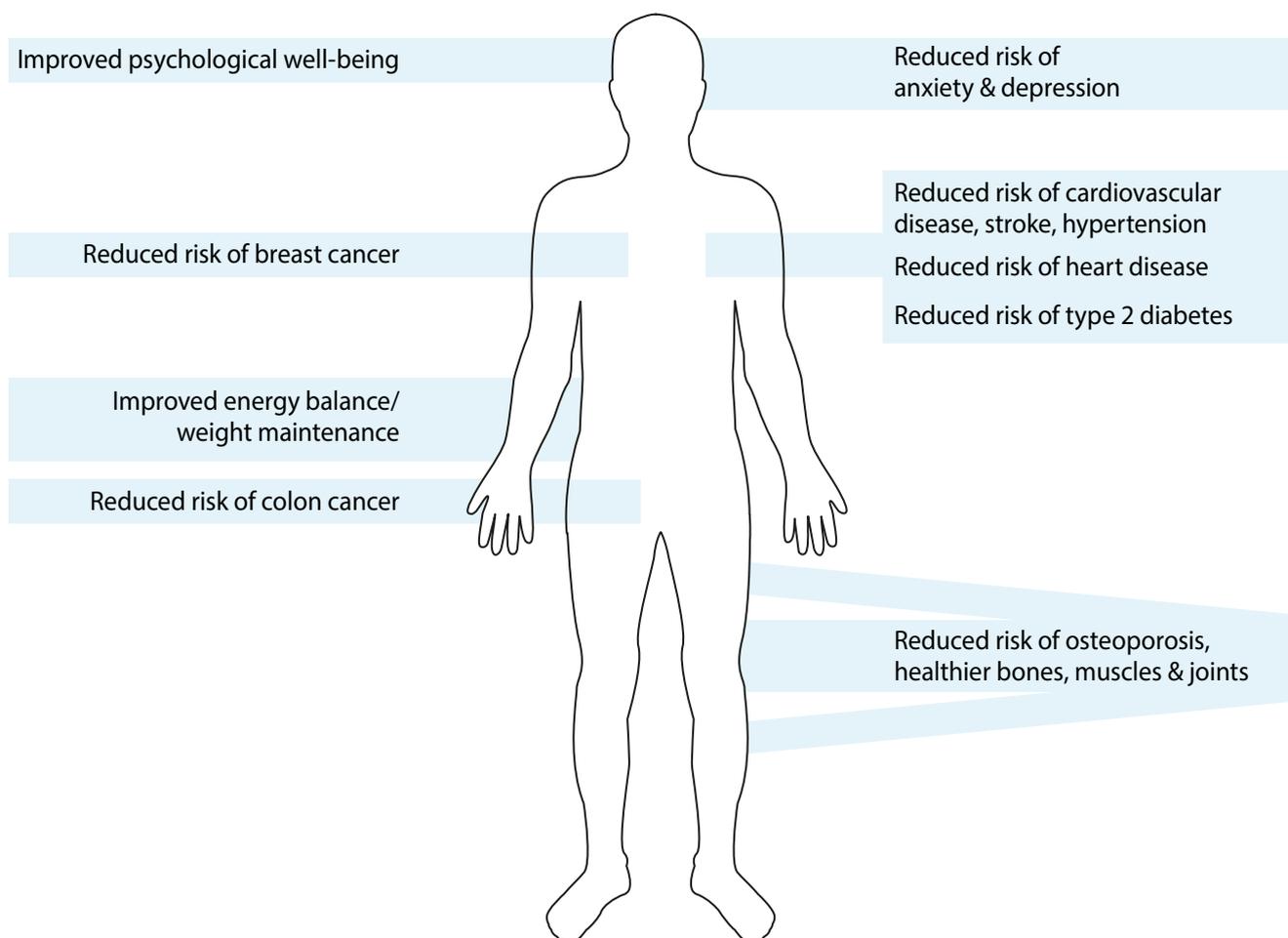
- *Exercise* is a subset of physical activity that is planned, structured and repetitive, with the objective of improving or maintaining physical fitness.
- *Physical fitness* is a set of attributes that are either health- or skill-related.
- *Sport* denotes physical activity that involves physical fitness, is governed by a set of rules or customs and is often undertaken competitively.
- An individual who is inactive is said to lead a **sedentary life**. Thus, we can describe people based on how active or sedentary they are.

Benefits of being physically active

People who are active are generally healthier. They:

- have a reduced risk of developing NCDs (and are better able to control NCDs if they already have them)
- are both physically and mentally active and are less prone to medical conditions
- are better able to control their weight
- feel better and benefit from improved appearance and self-esteem
- can manage their everyday activities without fatigue
- have increased mobility, which they maintain into old age.

The main health benefits of physical activity



Physical activity and body weight

A sedentary lifestyle or lack of physical activity combined *with* eating too much of the wrong kinds of food have contributed to the high rates of obesity in the Pacific Island countries. Healthy body weight is a function of both diet and physical activity. *Refer to Module 1 for the role of diet in maintaining a healthy body weight.*

Increasing physical activity levels can have the following effects:

- it uses up the body's stores of fat and can reduce weight
- it increases muscle mass (note that if muscle is gained and fat is lost, weight loss may not occur immediately)
- it changes body shape – physical activity can burn fat and increase muscle mass, which can reduce waist measurement.

With very few exceptions, everyone benefits from being physically active. For most people, being even moderately more active than they are at present will help make them healthier.

Potential risks of physical activity

There are many good reasons for people to be more physically active, but there are some circumstances in which caution needs to be used. While these are not big problems, we should be aware of them to protect both ourselves and the people we are advising.

1. Health

If people are not used to being physically active, they need to take reasonable precautions to protect themselves from any problems. For peace of mind and if there is an existing medical condition, seek medical advice before undertaking any physical activity or joining a physical activity programme. It is best to be safe. Always wear comfortable shoes and clothing.

2. Physical activity

It's important that people don't injure themselves during an activity (e.g. pull a muscle or get dehydrated). If someone is stiff or in pain the day after doing an activity, they were doing something wrong! There are a few sensible precautions that can be taken before starting an activity session.

(a) Warm-up

- For most light- and moderate-intensity activities, the first few minutes of the activities themselves are the warm-up.
- For vigorous-intensity activities, a warm-up is advisable – generally a light/moderate activity that uses the same parts of the body (e.g. walking before jogging).
- Do not stretch until the muscles that you are stretching are warm – particularly if you are stretching to increase joint flexibility.
- Avoid overstretching, especially bouncing while stretching.

(b) Fluid intake

- Dehydration is a very real issue in the tropics, so it is important to drink enough fluid prior to starting any activity.
- Stay hydrated while you are active by drinking regularly during the activity. Thirst is not a good sign of dehydration as it develops late – try to drink water frequently even if you are not thirsty.
- Unless you are undertaking vigorous exercise for long periods, such as training for a marathon, you do not need to use commercial sports drinks.
- Water is quite adequate.

(c) *Work to your own level*

- Forget no pain, no gain. It is wrong and foolish! Work within your own limits and gradually increase your level of activity.
- Don't be afraid to slow down or stop if you are feeling stressed, especially during vigorous-intensity activities. A short break and a drink of water are often all the rest you need.
- If you suffer an injury (e.g. a torn muscle), or if you have breathing problems, don't "push through the pain". **Stop and rest until you can continue comfortably or get help.**

(d) *Find a safe environment*

- The location should be appropriate to the activity. For example, those starting out should select a reasonably level surface for walking; for floor-based activities, select a comfortable surface.
- If possible, avoid busy roads so you don't breathe in too much vehicle exhaust.
- Be aware of motor vehicles on the road if you are out walking or running.
- In urban areas in particular, women may feel uncomfortable walking or running alone. Go with a friend. You are also more likely to maintain your programme if you have company.
- Find a place where dogs are not a problem (or carry a big stick).

(e) *Cool-down*

- Cooling down, particularly after vigorous-intensity activities, is important for your body as well as your mind.
- It brings your heart rate back towards normal, repays any oxygen debt and, as the name implies, allows your body's core temperature to fall – which helps you overcome the exercise-induced sweating that is so uncomfortable in the tropics.
- As with the warm-up, use the moderate-intensity and then light-intensity equivalent of your exercise activity as a cool-down option.
- You should also use the cool-down period to stretch the warmed muscles. This is a good time to work on hip, shoulder and spine flexibility.
- But do it gently and don't overstretch. Do not stretch your lower back by trying to touch your toes – this can be DANGEROUS!

Important note

- Physical activity is an important part of a healthy lifestyle, and nearly everyone can benefit from an increase in their current activity level. To keep people safe, consider their capability for safe activity and advise them accordingly.
- Don't push people too hard; encourage them to rest if they feel uncomfortable.
- Remember, sedentary (inactive) people who want to start an exercise programme should seek medical advice before starting.

Recommendations for physical activity

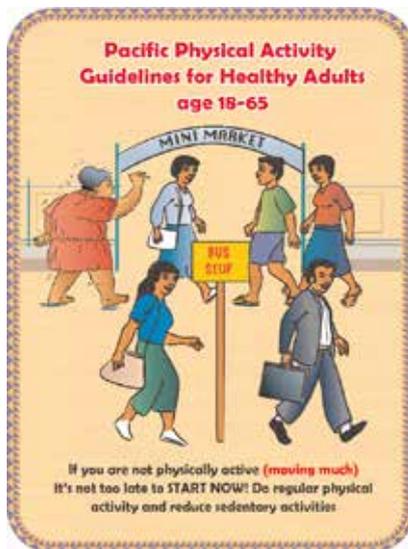
Regular physical activity is an important part of a healthy lifestyle. The *Pacific Physical Activity Guidelines for Adults* published by SPC and WHO in 2008 are relevant for all healthy adults aged 18–65 with no contraindication to physical activity. They also apply to individuals in this age range with chronic conditions not related to mobility, such as asthma, hay fever, hypertension, hearing impairments, and so on.

Pregnant, postpartum women and people with a history of cardiac events may need to take extra precautions and seek medical advice before starting on a vigorous physical activity regime, as indicated in the guidelines.

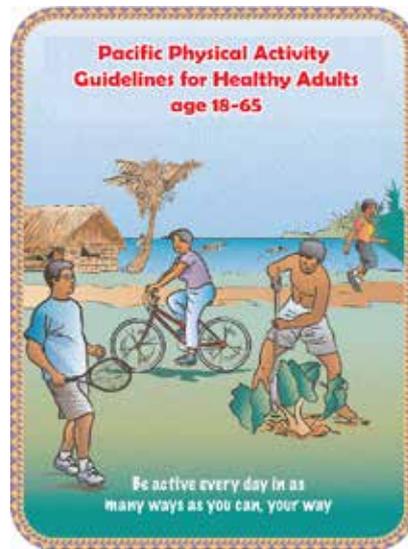
The *Pacific Physical Activity Guidelines for Adults* list four physical activity recommendations applicable to all Pacific Island countries:

1. If you are not physically active, it is not too late to **START NOW!** Do regular physical activity and reduce sedentary activities.
2. Be active every day in as many ways as you can, your way.
3. Do at least 30 minutes of moderate-intensity physical activity on five or more days each week.
4. If you can, enjoy some regular vigorous-intensity activity with family and friends for extra health and fitness benefits.

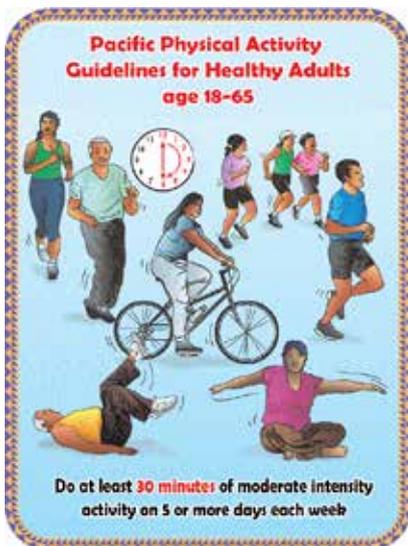
GUIDELINE 1



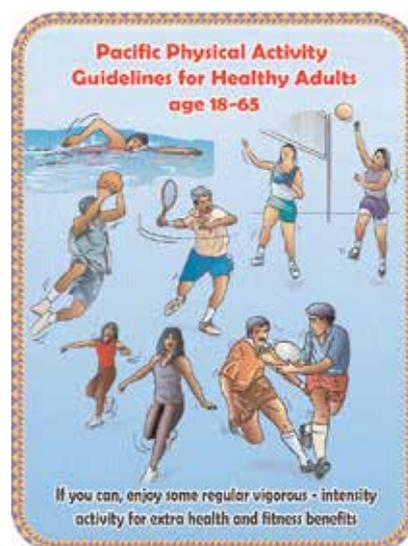
GUIDELINE 2



GUIDELINE 3



GUIDELINE 4



Group activity

The STEPS survey report indicates that most Pacific Islanders are not as active and not meeting the recommended 30 minutes of physical activity most days of the week for good health.

Scenario

A generous donor has offered you money to support a 1-year physical activity promotion project to reduce overweight and obesity in your community. You have decided to use the money to establish a physical activity and wellness programme. Proper planning is necessary to ensure good results and appropriate behaviour change outcomes.

Working in small groups of four or five, brainstorm what you are going to do. You have 20 minutes to brainstorm ideas and 5 minutes to present your ideas in plenary. The following questions may help:

- What is the physical activity situation in your community?
- Who and what is influencing the situation (i.e. lack of physical activity)?
- Who would be your target group to start with? Justify your selection.
- How will this project contribute to national health goals and targets?
- What behavioural objectives would the programme prioritise and why?
- Who else would you recruit for support and why?
- How will you know that you have achieved what you set out to do (i.e. through monitoring and evaluation)?
- Suggest some ways of marketing the programme.

Summary of Module 4

- Physical activity is body movement that uses energy from the foods we consume. It includes household chores, gardening, walking, running, playing, exercise and dancing.
- The four physical activity recommendations for Pacific Island people are:
 - If you are not physically active, it is not too late to START NOW! Do regular physical activity and reduce sedentary activities.
 - Be active every day in as many ways as you can, your way.
 - Do at least 30 minutes of moderate-intensity physical activity on five or more days each week.
 - If you can, enjoy some regular vigorous-intensity activity with family and friends for extra health and fitness benefits.
- Being physically active benefits individuals:
 - physically – helps to maintain a healthy weight, decreases the risk of obesity and NCDs as well as develops healthier bones, muscles and joints
 - mentally/psychologically – improves brain function, improves well-being by enabling you to manage work stress, and reduces the risk of anxiety and depression.
- Take care during physical activity, training and sports: wear appropriate and comfortable clothing; do not exercise on an empty stomach; warm up before exercising.

LEARNING MODULE 5: LIFE-COURSE APPROACH

Module 5 overview

This module acknowledges the importance of the life-course approach in the prevention of NCDs. Exclusive breastfeeding is an integral component of the life-course approach. Therefore Module 5 will address the importance of good nutrition in the first 1000 days of life, which includes conception, pregnancy and the first 2 years of life.

Learning unit

This module is taught as one single unit.

Learning objectives

After completing this module, participants will be able to:

- explain why the “first 1000 days of life” for infants is nutritionally critical
- describe each step of the “10 steps to successful breastfeeding”
- instruct new mothers on the importance of exclusive breastfeeding and appropriate introduction of complementary feeds
- establish a baby-friendly hospital policy
- advocate for the adoption of the International Code of Marketing of Breast-milk Substitutes
- identify appropriate partner agencies to work with to promote good nutrition, development and health of young children in your communities.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook, pages 26–28
- PowerPoint presentation provided
- *Pacific Guidelines for Healthy Eating During Pregnancy* [Link to come]
- *Guideline: Protecting, Promoting and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services*
<https://apps.who.int/iris/bitstream/handle/10665/259386/9789241550086-eng.pdf?sequence=1>
- *International Code of Marketing of Breast-milk Substitutes*
https://www.who.int/nutrition/publications/code_english.pdf
- SPC resources such as posters and information booklets, which are also available on the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the sessions to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *What is your understanding of a life-course approach?*
 - *Do you think it's a good approach? Why or why not?*
 - *How would you adapt this approach to your national/community context?*
 - *What is your understanding of the 1000 days initiative?*
 - *How would you adapt this initiative for your country/community?*
 - *What are some of the traditional practices or taboos around caring for pregnant mothers, breastfeeding and infant feeding?*
 - *How have they influenced or informed your thinking, behaviour and practice?*
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

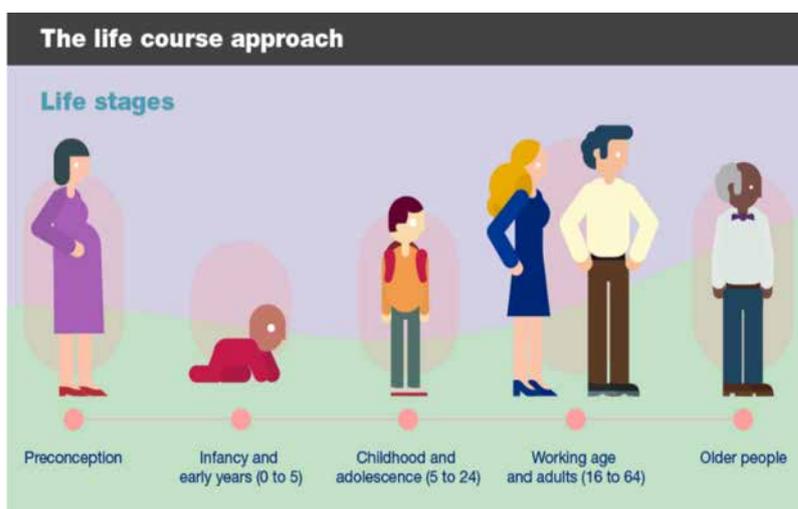
MODULE 5 CONTENT: LIFE COURSE

Refer to Guideline 9 in the Pacific Guidelines for Healthy Living, pages 26–28.

Life-course approach context

A life-course approach is a “framework that stresses the importance of all ages and stages of life and acknowledges the intergenerational context within which individuals exist” (WHO 2018). It offers the opportunity to focus on health, recognises the progressive dimension of health and illness as part of a life process and settings where large differences can be made in promoting or restoring health and well-being.

Adopting the life-course approach means identifying opportunities for minimising risk factors and enhancing protective factors through evidence-based interventions at important life stages, from the perinatal period through early childhood to adolescence, working age, preconception and the family-building years, and into older age.



First 1000 days

The *first 1000 days of life* – the time spanning roughly between conception and a child’s second birthday – is a unique period of opportunity when the foundations of optimum health, growth and neurodevelopment across the lifespan are established. During this period the brain displays a remarkable capacity to absorb information and adapt to its surroundings.

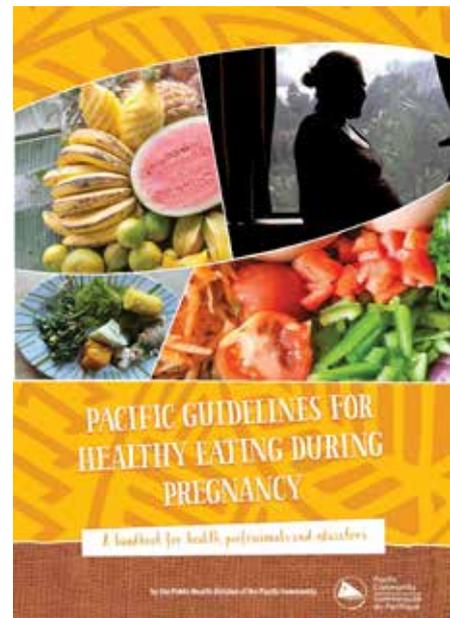
1. Preconception

The right nutrition during this crucial period can have an enormous impact on a child's ability to grow, develop and learn as well as future health. In addition to the critical events that shape an individual's health course, the number and sequence of exposures to risk and periods of increased susceptibility, it is also important to be mindful of genetically inherited characteristics.

➤ Healthy mother, healthy pregnancy

The health and nutrition status of a woman before pregnancy is important because it sets the foundation for a child's development and growth. Supporting the mother to adopt healthy behaviours can increase her chances of a successful pregnancy and positive healthy outcome for both her and the baby. Recommended healthy behaviours include:

- Eating a healthy diet as outlined in the Pacific Guidelines for Healthy Eating During Pregnancy
- taking a prescribed supplement for a healthy pregnancy
- being physically active
- aiming for a healthy weight gain during pregnancy
- giving up smoking
- reducing alcohol consumption
- attending antenatal clinics regularly
- getting up to date with all vaccinations before and during pregnancy.



2. Infancy and early years

Obesity is a preconception risk factor

Maternal obesity (BMI over 30)

The infographic is set against a dark red background. On the left, a blue silhouette of a pregnant woman has a white circle with a red heart on her belly. To the right, there are three orange rounded rectangular boxes. The top box contains a white silhouette of a foetus in a pink circle. The bottom box contains a green silhouette of a child. Each box lists specific health impacts.

Impact on women:

- increased risk of miscarriage
- Gestational diabetes and perinatal complications
- lower breastfeeding rates

Impact on foetus:

- increased risk of stillbirth
- metabolic abnormalities
- developmental abnormalities

Impact on children:

- increased risk of obesity
- diabetes

The first years of life have a profound effect on a child's future – on his or her brain development, health, happiness, ability to learn in school, well-being and even earning potential as an adult. During the first 1000 days, the brain grows more quickly than at any other time in a person's life and a child needs the right nutrients at the right time to support this rapid development of the brain.

➤ **Exclusive breastfeeding**

Benefits of breastfeeding

<div style="border: 1px solid #00a6c9; padding: 5px; margin-bottom: 10px; font-weight: bold; color: #00a6c9;">FOR THE BABY:</div> <ul style="list-style-type: none"> ■ Improved growth and nutrition status ■ Less likely to die ■ Less diarrhoea and respiratory infections ■ Less ear infections, gastrointestinal disorders, skin conditions and SIDS 		<ul style="list-style-type: none"> ■ Increased bonding ■ Lower risk of chronic diseases (diabetes, heart disease, asthma, some cancers) ■ Lower risk of overweight/obesity ■ Improved cognitive and motor development
<div style="border: 1px solid #e67e22; padding: 5px; margin-bottom: 10px; font-weight: bold; color: #e67e22;">FOR THE MOTHER:</div> <ul style="list-style-type: none"> ■ Mother less likely to become pregnant in early months ■ Lower risk of maternal cancers (ovarian and breast cancer) 		<ul style="list-style-type: none"> ■ Faster maternal recovery and weight loss post-partum ■ Less post-partum depression

Breastmilk:

- is the best and only food for infants for the first 6 months and nothing else
- provides all the essential nutrients baby needs for the first 6 months of life
- contains growth factors, vitamins, proteins and protective factors, including immunoglobulin, which protects against infections and diseases such as diarrhoea, asthma, lung infections and eczema.

➤ **Baby-friendly hospitals**

To protect, promote and support breastfeeding in health facilities, WHO recommends the following *10 steps to successful breastfeeding*.

Hospital facilities must:

1. (a) comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions
- (b) have a written infant feeding policy that is routinely communicated to staff and parents
- (c) establish ongoing monitoring and data-management systems

Key clinical practices:

2. ensure that staff have sufficient knowledge, competence and skills to support breastfeeding
3. discuss the importance and management of breastfeeding with pregnant women and their families
4. facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth
5. support mothers to initiate and maintain breastfeeding and manage common difficulties
6. do not provide breastfed newborns any food or fluids other than breastmilk, unless medically indicated
7. enable mothers and their infants to remain together and to practise rooming-in 24 hours a day
8. support mothers to recognise and respond to their infants' cues for feeding
9. counsel mothers on the use and risks of feeding bottles, teats and pacifiers
10. coordinate discharge so that parents and their infants have timely access to ongoing support and care.

➤ **Complementary foods**

Infants require appropriate complementary foods to meet their growing demand for nutrients around 6–24 months of age. Food safety and clean water must be part of the complementary feeding requirements.

WHO has published a series of evidence-based principles on complementary feeding for both breastfed and non-breastfed children. These include:

- Continue frequent, on-demand breastfeeding until 2 years old or beyond.
- Practise responsive feeding – i.e. feed infants directly and assist older children. Feed slowly and patiently, encourage them to eat but do not force them, talk to the child and maintain eye contact.
- Practise good hygiene and proper food handling. Prepare food with no added salt or sugar.
- Start at 6 months with small amounts of foods and increase gradually as the child gets older.
- Gradually increase food consistency and variety.
- Increase the number of times that the child is fed – two or three meals per day for infants 6–8 months of age, three or four meals per day for infants 9–23 months of age, and one or two additional snacks as required.
- Feed a variety of nutrient-rich foods, especially those rich in dietary iron and Vitamin A.
- Use fortified complementary foods or vitamin and mineral supplements, as needed.
- Increase fluid intake during illness, including more breastfeeding, and offer soft, favourite foods.

➤ **International Code of Marketing of Breast-milk Substitutes (Code)**

“The aim of this Code is to contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breast-feeding, and by ensuring the proper use of breast-milk substitutes, when these are necessary, on the basis of adequate information and through appropriate marketing and distribution” (Article 1).

“**Breast-milk substitute** means any food being marketed or otherwise represented as a partial or total replacement for breast-milk, whether or not suitable for that purpose” (Article 3).

What the Code covers

- formula milk
- any food or drink that would substitute for breastfeeding such as teats or foods aimed at babies under 6 months, or formula aimed at any age. Complementary foods should not be marketed in ways that undermine exclusive breastfeeding
- feeding bottles, teats or nipples.

Who is the Code for?

- manufacturers, distributors and retailers of any of the items above
- health-care workers, both professionals and volunteers
- health-care facilities – hospitals, clinics, etc.

What must be on the labels?

- labels must be in the local language
- information must include the hazards associated with infant formula feeding
- label cannot use idealising language or images such as a happy baby sleeping or protective shield suggesting baby is in a protective bubble against disease.

What is ALLOWED under the Code?

- use of formula with safe preparation for babies who need it
- sale of product with technical information (e.g. 125 ml polycarbonate bottle)
- scientific and factual information for health professionals (e.g. contains certain proteins)
- accurate information on safe formula preparation required on the label.

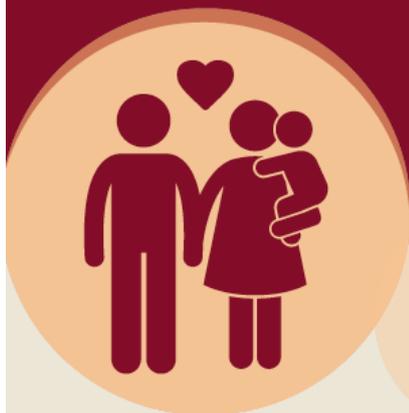
What is NOT ALLOWED under the Code?

- promotion to parents, advertising, free samples
- promotion to health professionals, gifts, free samples
- promotion in health facilities such as posters, free formula, gifts
- promotion of unsuitable products for babies such as sweetened condensed milk.

➤ Healthy environment

While nutrition is crucial for the healthy physical development of the brain, emotional well-being and social stimulation are equally important. Being in a loving, responsive, caring and safe family environment is vital to ensure children are ready to learn, ready for school and have good life chances. Improving children's and young people's mental well-being will have a positive effect on their cognitive development, learning, physical and mental health, and their social and economic prospects in adulthood.

Giving every child the best start in life



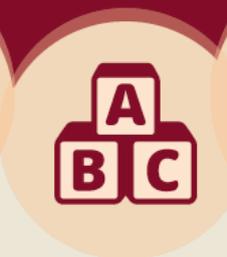
A loving, secure and reliable relationship with a parent or carer supports a child's:



emotional wellbeing



brain development



language development and ability to learn



capacity to form and maintain positive relationships with others

Group activity

Divide participants into three groups. Each group will prepare their response to one of the following scenarios and share their ideas in plenary. Participants should consider the principles of behaviour change communication in Annex 2 to guide their work. Groups will have 20 minutes to prepare and 5 minutes to present their ideas in plenary.

Scenario 1 – You have been asked to provide policy justifications for adopting the International Code of Marketing of Breast-milk Substitutes to support exclusive breastfeeding.

Scenario 2 – A development partner is calling for proposals on the first 1000 days to address childhood malnutrition. You are tasked with drafting a brief concept paper outlining your proposal.

Scenario 3 – To support Breastfeeding Awareness Week, you have been tasked with developing information, education and communication materials. These materials will be used to promote breastfeeding throughout the year in various community events.

Summary of Module 5

- The first 1000 days of life includes the period of a woman's pregnancy up to the child's second birthday, with weeks 1–16 of pregnancy being the most sensitive when the fetal nervous system (brain) rapidly develops.
- This period is the time in a person's life when nutrition has a substantial effect. By 2 years of age, the brain has reached 80% of its adult size.
- Adequate nutrition during this period has many positive effects such as proper growth and development, better performance at school, improved productivity during adulthood, and the prevention of NCDs later in life.
- Breastmilk is the best and should be the only food for an infant from birth until 6 months of age – it has all the nutrients needed in the right amounts.
- Adequate additional solid food in the right consistency must be introduced at around 6 months of age, with breastfeeding continuing until the child is 2 years old.
- Poor nutrition during the first 1000 days of life results in malnutrition, which has a long-term negative effect on growth, development, educational attainment, and productivity during adulthood.
- Malnutrition during this period increases the risk of developing chronic illnesses such as obesity, diabetes, heart disease and high blood pressure in later life.
- Working with appropriate partners such as non-governmental organisations, women's groups, religious groups and government ministries is the best way to achieve a wider population reach.



LEARNING MODULE 6: WELL-BEING – TAKE TIME TO RELAX

Module 6 overview

Guideline 10, “Relaxing and being part of a community are good for your health. Make sure you enjoy time with family and friends”, is about mental health, complementing the physical health focus of the previous guidelines. Well-being is strongly linked to happiness and contentment.

Learning unit

This module is taught as a single unit focusing on health and well-being.

Learning objectives

After completing this module, participants will be able to:

- critique the different views of health and well-being
- be aware of the negative impact of stress on mental and physical well-being
- recognise that stress is a normal part of life, but undue stress can be harmful to health if not handled appropriately
- identify signs of stress, causes and how to minimise them
- link and apply knowledge gained in previous modules to promote healthy living.

Teaching resources

- *Pacific Guidelines for Healthy Living* handbook, pages 18–20
- PowerPoint presentations provided
- *Live Healthy, Stay Healthy: Your Wellness Challenge* <http://purl.org/spc/digilib/doc/5p2xy>
- SPC resources such as posters and information booklets, which are also available on the SPC digital library <https://www.spc.int/DigitalLibrary/PHD/Collection/PHD>

Suggested teaching approaches

- PowerPoint presentation.
- Quiz to be completed at the beginning of the session to assess participant understanding of the topic. Any misconceptions to be noted and addressed throughout the session.
- Q&A to be encouraged throughout the session to stimulate useful discussions and help participants understand key aspects of the topic before moving on to the next topic. Suggested questions to prompt discussions:
 - *What is our view of health?*
 - *How does the Fonofale model of health reflect your understanding of health?*
 - *Is it a realistic model? Why or why not?*
 - *Are you aware of other models of health? Which one supports your understanding of health?*

- How have our beliefs and values shaped our health-seeking behaviours?
 - How do you deal with stress in your life? How do you recognise it in other people?
- Group work discussions and activities using behaviour change communication principles and approaches as tools to help promote key messages and create supportive environments for positive behaviour change.

MODULE 6 CONTENT: HEALTH AND WELL-BEING

Refer to Guideline 10 in the Pacific Guidelines for Healthy Living, page 28.

Key messages

- Relaxing is good for your health.
- Relax and enjoy time with family and friends.

Health, well-being and wellness

WHO defines health as “a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity”.

Health in the Pacific context is more holistic in that it includes spiritual well-being, cultural values and beliefs, family and the wider socio-economic environment as depicted by the *Fonofale model of health* used in the development of mental health services for Pacific Island people (refer to Annex 6 for more details).

Well-being is strongly linked to feelings of happiness, contentment and life satisfaction.

Mental health is a state of well-being that reflects one’s ability to deal with feelings and normal stresses of life, work productively and fruitfully, and contribute to her or his community. Having a healthy mind and body are both very important. Everyone has good days and bad days. A bad day doesn’t mean you have a mental illness, but you can still improve your mental health.

Stress is not necessarily harmful. Mild forms of stress can act as a motivator and energiser. What one sees as stressful, another may view as challenging. People who are stressed and do not relax are at greater risk of lifestyle diseases, particularly stroke, high blood pressure and heart disease. It is important to identify and avoid stressful situations.

Causes of stress

Stress has many possible causes, and they are different for every individual. One situation may make one person stressed but have no effect on someone else. Some common stressors include:

- environmental problems such as extreme weather
- work, particularly for workaholics
- major life events such as the death of a relative, a lost job, loss of financial support or income, a promotion or a new baby
- others (e.g. self-criticism, missing the bus, other people’s behaviour).



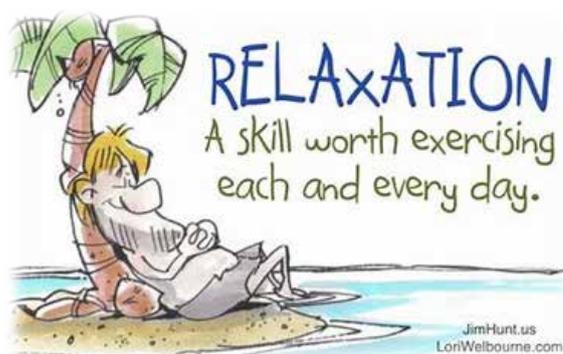
Much stress is related to our reaction to an issue or problem and our inability to cope with it. People react differently to stressful situations. Some people tend to overeat when stressed, while others do not eat. Either extreme poses a threat to nutritional status and well-being.

Ways to improve your mental health and well-being

Relax

Learn to relax and enjoy life, and do things you enjoy. Having something to look forward to promotes positive mental health and well-being. Everyone is different, so find out what works for you. Relaxing activities may include:

- visiting a friend
- listening to music or singing
- reading a book
- taking up a hobby
- gardening
- catching up with a friend.



Eat healthy food

- watch what you eat; follow the recommendations outlined in Module 1
- eat regular meals to give you energy and regulate your blood sugar levels
- eat plenty of fruit and vegetables to make you feel healthier
- reduce your sugar intake for better health
- avoid alcohol and other drugs as they can worsen the symptoms of mental health problems.

Be active

Exercise is a great way to improve your negative mood. Do whatever you enjoy doing that gets you active; for example:

- go for a walk or a run
- go for a swim at the beach
- dance
- play a sport you like
- ride a bike
- join a sports team (rugby, footy, netball, etc.).



Get enough sleep

- If you are tired, you are more likely to feel stressed and worried.
- Aim for at least 8 hours per night to avoid feeling tired.
- Get into a good bedtime routine – have a cup of herbal tea, read a book or listen to relaxing music before going to bed.
- Try going to sleep and getting up at the same time each day.
- Avoid drinking coffee before bedtime.

Stay connected and keep in touch with family and friends

- Feeling connected to people can help you feel valued and appreciated and can support you during difficult times. A lack of contact with others makes people feel lonely and disconnected.
- Even if you are not contributing to conversations, stay around people.
- Spend time on relationships you are interested in.
- Talk to family and friends and discuss your experiences, worries and feelings.
- Care and support other people.
- Talk to a trusted health professional if you have any physical or mental health concerns.

Get involved

Join a local community group in something that interests you. This will also allow you to meet people who have similar interests; for example:

- find a self-help group, as talking to people who have similar feelings can be a huge support
- join a craft group
- join a church group
- learn a new hobby through an adult education course
- join a sporting team.

Problem-solving

Learn to anticipate problems before they arise, as it will help reduce worry and stress. You can do this by:

- learning to understand your own thoughts and feelings
- planning what you might do in situations that cause you stress
- identifying at least two people who can help you when you come across a problem in your life
- planning for a crisis and telling people what you would want to have happen if you become unwell.

Set goals

It is important to introduce a regular routine and structure to your days. Setting and achieving goals can help to organise your time and give you a sense of purpose in life. Goals can be related to:

- work
- study
- exercise
- eating healthy food
- joining in on social activities.

Group activity

Divide participants into three groups, with each to work on one of the following scenarios. Participants should consider the principles of behaviour change communication in Annex 2 to guide their work. Groups will have 30 minutes to prepare and 5 minutes to present their ideas in plenary.

Scenario 1 – You have been tasked with implementing a healthy workplace programme in the Ministry of Education. Develop an information pamphlet on how to manage stress in the workplace. Identify your key messages, outline the process of how you developed the resource and present your draft in plenary.

Scenario 2 – Prepare a submission to government to endorse the use of the Pacific Guidelines for Healthy Living for a healthy workplace wellness programme for all government ministries. Identify key partners, an outline of what the programme will look like and how you will monitor the programme.

Scenario 3 – A community church is holding their annual church conference, and the organisers have asked you to come and talk about health and wellness during one of the general sessions. You have 30 minutes for your talk. Prepare an outline of your talk and what your three take-home messages will be and why.

Scenario 4 – You have been tasked with preparing a TV ad to raise awareness about the importance of coping with life stress for health and well-being, and your budget is \$50,000. Prepare an outline of how you will go about doing this, who your partners are, your three key messages and how you will monitor its implementation.

Summary of Module 6

- Take time to relax with and enjoy family and friends at regular intervals.
- Stress is a normal part of life. Unmanaged and persistent stress can cause health problems.
- Living and eating healthily can help minimise the negative effects of stress and promote health and well-being.

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ANNEXES

Annex 1: Effective adult learning principles

Principles of adult learning

Being an effective facilitator involves understanding how adults learn best. Theories of effective learning include the following ideas and principles:

➤ **Purposeful**

Adults like to know why they should learn something before investing time in a learning activity. Facilitators must ensure that the learners know the purpose of the training as early as possible.

➤ **Self-directed**

Adults tend to see themselves as self-directing, responsible grown-ups. Facilitators must take account of this by helping adults identify their own needs and directing their own learning experience as much as possible.

➤ **Participatory and experience based**

Adults participating in training programmes bring with them a wealth of experience and a great deal to contribute. Facilitators are more successful when they identify ways to build on and make use of adult participants' experience.

➤ **Relevant and problem-solving**

Adults tend to respond well to learning experiences that help them cope effectively with daily work responsibilities. They are willing to devote energy to learning those things that they believe help them perform a relevant task or solve a relevant problem. Facilitators who take the time to find out the needs and interests of participants and to develop content in response to these needs are most helpful to adult learners.

➤ **Self-assessment oriented**

Adult learning is given a boost when individual participants are encouraged to assess their own knowledge and skills in order to discover gaps or limitations for themselves.

Four tips for a successful training event

You cannot always guarantee 100% successful training events, but some factors will increase the likelihood that things go well! Four important tips for success are to (1) create a safe place for learning, (2) make the learning environment comfortable, (3) encourage active participation, and (4) use facilitation more than lecturing.

Each of these tips is explained with some practical examples.

Tip #1: Create a safe place for learning

For example:

- Be there early enough so that you can greet participants at the door, welcome them, learn their names, and allow time for them to tell you something that's important to them.
- Use name badges and warm-up activities to get the participants familiar with one another.
- Share the objectives of the training programme early, ahead of the session, if possible.
- Explain to participants how they can benefit from the information and learning experiences in the programme.
- Demonstrate your respect for each individual.
- Use participants' names.
- Be clear about whether any parts of the training involve confidentiality and remind participants of this at the appropriate points in the programme ("For the next exercise, whatever you discuss in your small groups or in the large group is confidential – does everybody understand and agree to this?").

Tip # 2: Make the learning environment comfortable

For example:

- Make sure the room has appropriate lighting and find out how to adjust the lights; turn the lights on brightly for the start of the session.
- Get a room with natural light if possible.
- Find out how to adjust the thermostat of heating or air-conditioning units for the most comfortable level for most of the participants.
- Hide unnecessary items (e.g. boxes, materials, etc.) not needed till later. Arrange chairs neatly in the pattern most suitable for the start of the event. This tidiness sends the message that you took professional care in preparation for participants; it also indicates that professionalism is expected of them.
- Make sure that the facilitator and all audiovisual materials can be seen and heard by all the participants (try sitting in a few different seats around the room).
- Organise the position of the tables and chairs to be most conducive to the learning activity (In rows? In circles for small groups? Positioned equidistant around tables?), but do ensure that everyone has adequate "personal space".
- Have enough supplies of extra pens and paper available.
- Have refreshments (tea/coffee/juice/water, etc.) available in the morning before things get started.
- Make sure to plan for and implement comfort breaks that are frequent enough and long enough for participants.

Tip # 3: Encourage active participation

For example:

- Use participants' names as often as possible.
- Create pairs or small discussion groups to overcome any reluctance to share ideas or concerns in the wider group.
- Share something yourself to set an example of beginning an exchange of information or ideas.
- Use reinforcement – both verbal and non-verbal – to encourage participation; thank people for contributions, use positive nods, smiles, eye contact, etc.

Tip # 4: Use facilitation more than lecturing

For example:

- Straight lectures are not usually required or essential; you will enhance the learning experience more often by facilitating experiential activities and participant discussions.
- Create discussion – not just between the facilitator and the participants, but among the participants.
- Find out some opinions and ideas from participants before you deliver your information.
- Provide opportunities for participants to evaluate their own learning throughout the training programme – you could use a notebook or self-assessment sheets.
- Devise experiential learning activities (such as guided exercises or tasks) in which participants are allowed to discover new information and ideas for themselves.

Annex 2: Principles of behaviour change communication

Source: *Behaviour Change Toolkit for International Development Practitioners: Enabling People to Practice Positive Behaviours*. Available at: <https://www.behaviourchange.net/document/33-behaviour-change-toolkit>

Persuading people to change their behaviours is not a simple task. Many factors – some obvious, some not so obvious – play a role in how people decide to act or behave. It is important to understand and not assume the reasons why people behave as they do and use these insights to help people adopt behaviours that will make positive changes in their lives.

Human behaviour

Some basic facts about human behaviour:

- People make meaning of information based on their own context.
- Culture, norms and networks influence people's behaviour.
- People can't always control the issues that create their behaviour.
- People are not always rational in deciding what's best for their health and well-being.

Common misconceptions on why people behave as they do

- ***We just need to educate people*** – Knowledge matters but this is not enough. People need to experience and feel the benefits for themselves.

- ***If people want to change, they just need to decide to do so*** – Research shows that people tend to do things their social, economic and physical environment allows them to do. Development strategies need to focus on creating supportive environments to make practising the desired behaviour easier and on highlighting the positive practices that people are already doing.
- ***Change of attitude will change behaviour*** – Attitude is a settled way of thinking or feeling about something or someone; behaviour is the way someone acts. It's important to focus on behaviour, not just attitudes.
- ***Good communication will change behaviour*** – Good communication is important, but the way the message is communicated – who, how, the messenger and mode of message transmission – is also important.

What makes behaviour change programmes succeed or fail?

Behaviour change projects are most likely to be successful when they:

- ***rely on data, not assumptions*** – incorrect assumptions alongside unrealistic expectations are among the main reasons why many projects fail.
- ***are credible*** – we show we understand and we know what we are doing.
- ***understand the “competition”*** – promoted behaviour is more beneficial and worth practising than the competing behaviour.
- ***make adopting key behaviours easier***
- ***seek allies*** – buy-in from community/government leaders to support our work.
- ***have a narrow focus*** – focus on those behaviours that are most essential for achieving your project's goals and those that are already being practised by some community members. Furthermore, go for the easy wins first to encourage people to try the more difficult behaviours.
- ***are tailored to a specific audience*** – we will be successful only if we tailor our strategies to the needs and attitudes of specific audiences. One approach simply does not fit all.
- ***go for behaviour, not just awareness change***
- ***propose realistic targets, budgets and time frames*** – set realistic targets, time frames, budgets and human resources.

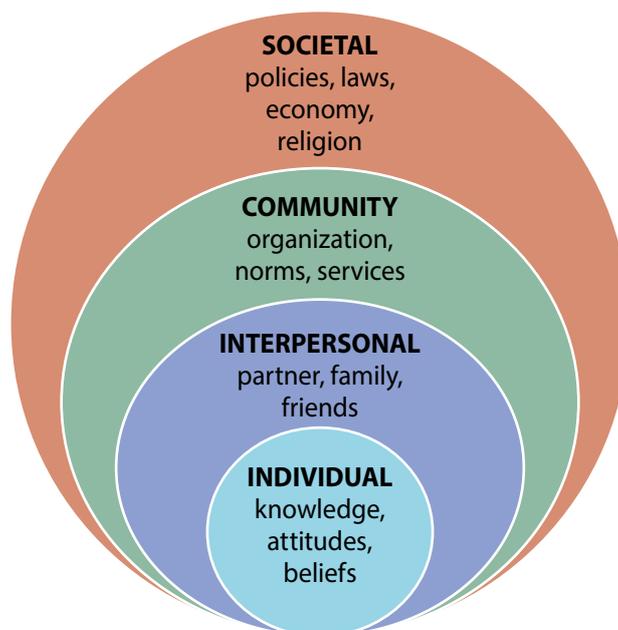
Behaviour change communication theories

Behaviour is a complex phenomenon, influenced by many factors within the individual and beyond. There are many theories to describe human behaviour, and two will be used here as key tools to help promote the key messages in the guidelines.

➤ **Socio-ecological model for change**

The socio-ecological model reflects how our behaviour is influenced by a range of personal (knowledge, skills, habits, self-confidence and desires) and external factors (family, peers, local community, social norms, and political, economic and environmental conditions). It considers the relationships between individuals and their environments.

Socio-ecological model for change



Source: *Behaviour Change Toolkit for International Development Practitioners: Enabling People to Practice Positive Behaviours*. Available

https://www.fsnnetwork.org/sites/default/files/pin_2017_behaviour_change_toolkit_mail_0.pdf

➤ **Stages of change model**

According to this model, people do not change behaviour all of a sudden and remain “changed” from that moment onwards. Rather, people move through subtle stages to change their behaviour – from becoming aware to becoming informed, becoming convinced, deciding to take action, taking action, repeating that action, and finally maintaining that action.

Table A2.1: Stages of behaviour change and potential communication strategies

Stages of behaviour change	Communication strategies
Hear <i>about the behaviour</i>	Raise awareness about the issue Recommend a solution
Become informed <i>about it</i>	Personalise information on risk and benefits
Become convinced <i>of its worth</i>	Identify perceived barriers and benefits to behaviour change Motivate and encourage to take specific action
Decide <i>to act on conviction</i>	Provide logistical information Use community groups to counsel and motivate
Act <i>on conviction</i>	Provide information on correct use of product or service Build skills through trials Reduce barriers through problem-solving Facilitate social support
Reconfirm <i>that action was worthwhile</i>	Assist with feedback Encourage continued use by emphasising benefits Provide reinforcement
Maintain <i>new behaviour</i>	Remind them of new behaviour Assure them of the benefits of their ability to sustain behaviour Facilitate social support

Seven steps in designing for behaviour change

Step 1 – Select the target behaviours.

What is the behaviour we want to promote?

Step 2 – Define the priority and influencing groups.

Who needs to practise the behaviour and who is influencing the behaviour?

Step 3 – Understand the barriers and motivators.

What are the main barriers and motivators to adopting the promoted behaviour?

Step 4 – Define activities to be implemented.

What do our behaviour change activities need to achieve to address the identified barriers? Is the behaviour activity **EAST** – **E**asy, **A**tttractive, **S**ocial and **T**imely?

Easy – make activity easy, cheap and hassle free to practise

Attractive – make the activity desirable

Social – use social networks

Timely – promote/implement activity when people are most receptive

Step 5 – Develop action plan.

Which activities will your team implement to motivate people and reduce the barrier?

Step 6 – Measure changes in behaviour (monitoring and evaluation).

Step 7 – Document and share results.

Possible tipping points

A tipping point refers to the dynamics of social change, where trends rapidly evolve, building momentum to a point where they gain strength and become unstoppable, thereby leading to change. It can be driven by a naturally occurring event or a strong determinant for change, such as political will that provides the final push to “tip over” barriers to change.

Obstacles or barriers to change

Understanding the barriers to change – even those that may be beyond the ability of communication to change – is important for making strategic health communication decisions. Why are people not adopting desired health behaviours?

Factors to consider:

- **Information** – What information do they receive about the health issue? How timely, accessible or relevant is it? Through what channels? How do they react to it? What information do they need?
- **Motivation** – What motivates people to act? What appeals to them? What do they want? How do gender norms make them more or less motivated?
- **Ability to act** – What life skills do people have? What strengths and resources do they have? How confident or hopeful do they feel about change? How do gender norms contribute to or limit their ability to act? Why?
- **Enabling environment** – What policies affect them? Which are missing? What educational or religious systems affect them? How does gender inequality affect them? What is the political context of their work? How do economics affect them? What is the physical or organisational situation in which they live or work? What services are available to them?
- **Values** – What are the deep underlying beliefs of each group? (Think of gender norms and other social and cultural norms.) How do these norms affect people’s attitudes, beliefs, and, in the end, their behaviours? How do these values and norms influence the health problem? Do all affected or influential groups have the same norms?

Talk to those most affected as well as those who directly and/or indirectly influence those most affected.

Seven Cs of effective communication

- **Clear** – be clear about your goal or message; minimise the number of ideas in each sentence; make it easier for readers to understand your meaning. People should not have to read between the lines and make assumptions on their own to understand what you are trying to say.
- **Concise** – stick to the point and keep it brief. Your audience doesn’t want to read six sentences when you can communicate your message in three.
- **Concrete** – when your message is concrete, your audience has a clear picture of what you are telling them. There are details and vivid facts but not too many.
- **Correct** – communication fits the audience; it is also error free. Do the technical terms you use fit your audience’s education level or knowledge? Is your grammar correct?
- **Coherent** – your message is logical, all points are connected and relevant to the main topic, and tone and flow is consistent.
- **Complete** – messages are complete, the audience has all they need to be informed and, if applicable, to take action.
- **Courteous** – communication is friendly, open and honest. Keep the audience’s views in mind – a little bit of courtesy, even in difficult situations, can go a long way.

Language matters

The language we use has a massive influence on whether people pay attention to our messages and act upon them. To avoid the most common mistakes, use some of the following tips:

- Personalise your message by addressing the person directly through the use of the word YOU and the imperative verb tense. For example, say, “Go see a health professional if you want more information” rather than “People with medical conditions or concerns should seek the advice of a health-care professional”.
- Start with a question to pull people into the topic if you are sure that they will answer “yes”. For example, “Want smart and healthy kids? Feed them eggs at least once a week!”
- Use positive appeals rather than negative messages. Show what is great about the product or behaviour. Instead of saying “Do not waste food”, highlight the benefits of keeping food safe.
- Focus on one or a small number of points, especially if you have limited space (e.g. on billboards) or time (e.g. in a video). Using one strong message is often more effective than squeezing in three points. If you are developing a series of communications (e.g. radio shows), focus each one on a single message.
- Refer to cumulative benefits; for example, showing how much people can save after a year of quitting tobacco smoking gives quite a powerful argument for doing so.
- Adjust to the reading level of your priority group by using sentences that are short, contain simple words, which you are sure the audience knows, and are written in a large font. Since many people cannot read, the core message in your materials needs to clearly come out of the pictures they contain.

Behaviour change communication approaches

- advocacy, public relations, media campaigns
- social and community mobilisation for wider participation, networking, coalition building and ownership
- interpersonal communication such as education, training, outreach testimonials and counselling to inform, convince, motivate and maintain behavioural action
- advertising and promotion via mass media such as TV, radio, newspaper; other available media such as posters, banners, billboards
- point-of-service promotion with visible promotional signs and symbols at service points.

These approaches can be implemented on their own or can be combined to amplify the effect.

Advocacy

- Advocacy is a communication approach that involves influencing the formulation, modification, alteration, implementation and discarding of a public policy. Messages are intended to influence the actions of policy-makers.
- “Policy” is a plan, course of action or set of regulations adopted by government, business or institutions designed to influence and determine decisions or procedures. “Public policy” refers to actions adopted by government that define the framework within which social actors can act.
- The clarity of the message is as important as the choice of medium – TV, radio, newspaper, social media. Use a combination of different mediums.

Planning an advocacy initiative

Step 1 – Analysing policies

- identify a policy issue
- identify key actors and institutions
- analyse the policy environment
- summarise policy findings
- identify options for policy change.

Step 2 – Outlining an advocacy strategy

- select a policy issue
- select target audience
- set a policy goal
- identify allies and opponents.

Step 3 – Refining an advocacy strategy

- select roles
- identify key messages
- define advocacy activities.

Step 4 – Framing a plan

- set a timeline
- prepare a budget
- prepare an action plan
- plan for monitoring and evaluation.

Key success factors for advocacy

- credibility of messenger – work record, experience and expertise, reputation – technical know-how, more accurate grassroots information, access to a particular constituency, etc.
- perception of motives – transparent or hidden, self-serving versus greater good?
- independent of political parties or source of funds
- accountability
- size or visibility of the organisation – size may be viewed as a measure of the success of an organisation
- alignment with stated national objectives
- well-defined and specific message
- attract large set of allies and alienate as few as possible
- focus on issues rather than organisations or leaders.

Principles for effective message development

➤ Keep it simple

- Make it easy to understand
- Make it short, uncluttered, brief and to the point
- Avoid using jargon or complicated language
- Avoid message fatigue! Don't bombard an audience with too many messages.

- **Know your audience and involve them early on**
 - Address the audience’s level of knowledge – Is the message complete and does the audience have all they need to be informed and take action if applicable?
 - Address their values, norms and beliefs – Does the message address the values that are most important to the audience?
 - Address their needs and priorities – What does your audience care deeply about or fear?
- **Invite the audience to “fill in the blanks” and reach conclusions on their own**
 - Hold back from including every detail
 - Allow the audience to use their own thought processes to take ownership of the message.
- **Present a doable solution**
 - Focus on local solutions, rather than the cause or causes of the problem.

Testing messages

How do we learn whether people are likely to pay attention to our information, education and communication materials and the messages they include, understand them correctly and find them motivating?

The best way is to ask the people for whom they were designed for their opinion concerning some of the following “quality factors” (you do not always need to assess all of them).

- **Comprehension** – Do people understand the main point(s)? Do they understand every word used?
- **Relevance** – Do people feel that the materials were made for people like them? Can they use the information in their own lives?
- **Noticeability** – Do the materials attract people’s attention? Do they notice them?
- **Memorability** – Do people remember the materials’ messages after having seen them once?
- **Credibility** – Do people trust the content of the message and its perceived source?
- **Acceptability** – Do people feel that the materials fit the culture? Are they sensitive enough?
- **Knowledge, attitude or belief change** – After being exposed to the materials, do people think that they learned anything new or that it motivated them to do something?
- **Strong and weak points** – According to the respondents, what are the best things about your materials? If they had to change something, what would it be?

Focus groups

Focus group interviews offer a relatively quick and easy way to pre-test our messages and communication materials. These are made up of between six and 10 people from our priority groups with whom we discuss opinions on the “quality factors”. The participants need to share similar characteristics (e.g. all are male farmers from the same community). If you target more priority groups (e.g. mothers and fathers), discuss their opinions in separate groups. When conducting focus groups:

- make sure that everyone can see or hear the materials or media you are assessing
- rotate the order in which you present different versions of the materials in each focus group
- ask for a general reaction first before you start asking about specific details
- if you need to decide between several graphics, show people the pictures by themselves without the text and ask what message they think the graphics convey

- after showing all versions, ask people to rank them in order of preference
- encourage critical feedback if only positive feedback is being given.

Always involve at least several people for whom the materials were designed in the testing process.

Behaviour change evidence

- Emotions, not facts, are the most effective agenda for change. In almost all successful change efforts, the sequence of change was not ANALYSE–THINK–CHANGE, but rather SEE–FEEL–CHANGE. Just telling people the benefits of a behaviour change will not motivate them to adopt it.
- People will do things that their social, economic and physical environment allows them to (i.e. the external factors that shape people’s behaviour). Therefore our behaviour change strategies need to be based on shaping the environment to make practising the desired behaviour easier and on highlighting the positive practices that people are already doing.
- Change in attitude alone has a limited effect on our behaviours. Our attitudes are determined by our experiences. We need to focus on changing behaviour, not just attitudes.
- Good communication is important but simply improving the way we communicate our message is not enough. The most successful behaviour change initiatives focus relentlessly on removing barriers to adopting and practising the desired behaviours. This takes more than well-designed posters or trainings!

Monitoring and evaluation

Monitoring involves routine data collection to check *process* and *outputs* and asking the following questions:

- How well are activities implemented?
- To what extent are planned activities realised?

Monitoring measures:

- **programme process** – or the scope of activities that use resources to achieve expected results (e.g. the number of training sessions and/or focus group discussions conducted and the number of outreach activities initiated)
- **programme outputs** – or the results obtained through these activities (e.g. the number of participants trained or outreach contacts made).

Evaluation involves data collection at discrete points in time to investigate systematically a programme’s effectiveness in bringing about desired change in an intended population or community. It determines whether its theory of change was accurate and whether the communication strategy and activities were effective.

Evaluation answers questions such as:

- Were barriers to social and behaviour change reduced by our efforts?
- Were these changes meaningful for our programme?
- How good a predictor is our theory of change?
- Have we achieved our communication objectives?

Evaluation measures:

- **outcome** – short-term or intermediate results obtained by implementing programme activities
- **impact** – long-term effects (e.g. change in health status) measured through special studies with wide district, regional or national coverage.

Monitoring and evaluation framework

It's important to keep in mind the difference between the two processes when developing the monitoring and evaluation framework.

Table A2.2: Differences between monitoring and evaluation

Monitoring	Evaluation – baseline, midpoint, endpoint
Collect data over time during implementation on: <ul style="list-style-type: none"> • program process (what the programme did and what the population did) • the quality of the interventions and materials 	Collect data at discrete points in time before, during and after implementation to: <ul style="list-style-type: none"> • compare with the baseline • document outcomes and changes in the population • verify whether the data support assumptions made in the programme design

Monitoring and evaluation indicators and targets

Indicators are:

- data points that are used to measure how close a programme is to its path and how much things are changing
- defined by the objectives of the programme and questions that need to be answered. Having SMART objectives makes the process straightforward.

Monitoring indicators focus on processes and outputs:

- **Process indicators** provide information on the scope of activities in the work plan to be implemented as well as the quality of implemented activities.
- **Output indicators** provide information on the results of implementing programme activities.

Evaluation indicators provide information on the outcome that the programme hopes to achieve, which are embedded in the communication objectives.

Targets or realistic benchmarks are set once the indicators are set. They provide clarity about what will be achieved or is expected to be achieved by the programme.

Work plan activity	Monitoring questions	Monitoring (process/output) indicators
Physical activity (PA) radio spots in 3 communities	Were the radio spots aired? In how many communities?	Process indicator – PA radio spots aired Output indicator – number of communities reached by broadcasting of the PA radio spots
Communication objective	Evaluation questions	Evaluation (outcome) indicator
By the end of the project, there will be an X% increase in the number of women participating in PA	How many women participated in PA before and after the programme?	Percentage of women participating in PA programmes at the start of the project? Percentage of women participating in PA programmes at the end of the project?

Research and behaviour change communication

It is difficult to clearly show that the measured change was the direct result of the implemented programme, and research plays a very important role to provide information on whether changes have occurred due to the implemented programme or not.

Tips for designing evaluation research

- Establish a solid baseline and follow data collection at midpoint and endpoints.
- Identify a comparison group with similar demographic characteristics as the intervention group but do NOT expose them to programme activities.
- Statistically significant differences between the groups may suggest the social and behaviour change communication intervention has had some success in bringing about change.
- Monitoring and evaluation tools are simple, clear, concise and collect only the information that will be used. Finalised tools respect the privacy and confidentiality of participants and clients.
- Programme staff are well trained to use data collection tools. Role-playing exercises may help build confidence and skills of staff and improve data collection.

Annex 3: Healthy catering checklist

Use this checklist when contacting a potential caterer for an event. Give them an outline of what is required and provide them with the following checklist to assist them to plan suitable menu options

Check that the menu offers:		Tick
Variety	A wide range of nutritious food from each of the food groups should be offered	<input type="checkbox"/>
	A variety of vegetables, fruit and dried beans should be available	<input type="checkbox"/>
Vegetables and fruits	Vegetables and fruit should be included in most of the menu items	<input type="checkbox"/>
	Fruit should be offered either fresh, canned (in natural juice) or dried	<input type="checkbox"/>
	Salads and vegetables should be available and fruit should be offered with dessert	<input type="checkbox"/>
	Vegetarian items should be available	<input type="checkbox"/>
Food preparation	Healthy food preparation methods should be used (e.g. steaming, stir-frying, microwaving, light grilling, oven baking or poaching)	<input type="checkbox"/>
	Fried foods should be avoided, but if not possible, use poly- or monounsaturated oils (e.g. canola, olive, sunflower, peanut)	<input type="checkbox"/>
Beverages	Offer non-alcoholic beverages: <ul style="list-style-type: none"> • Water: still, sparkling, soda or mineral (unflavoured) • 100% fruit juices • Fruit cocktails or fruit punch • Tea: herbal, green or black • Coffee: instant or filtered 	<input type="checkbox"/>

Annex 4: Body mass index

Source: *Promoting Physical Activity in Pacific Island Communities: Workshop Workbook*. Available at: <http://purl.org/spc/digilib/doc/zwpzh>

It's important to become familiar with basic anthropometric measures relating to body composition such as the body mass index (BMI).

1. Height

(a) Equipment

- Measuring tape (centimetres)
- Blu Tack or similar (to attach the tape to the wall)
- Set square or similar (e.g. book)

(b) Procedure

Subject

- i. Remove footwear.
- ii. Stand with heels, buttocks, shoulders and the back of your head against the wall.
- iii. Hold your head straight and look directly forward.

Measurer

- i. Attach the tape measure vertically to the wall with the 0 cm mark at floor level.
- ii. Place the set square (or spine of the book) against the tape.
- iii. Ask the subject to "stand as tall as you can".
- iv. Slide the set square (or book) down the tape until it rests lightly on the top of the subject's head.
- v. Read the tape at the bottom of the set square (or book) to the nearest millimetre.
- vi. Record the height measurement here: ____m.

2. Weight

(a) Equipment

- Scales (kilograms)

(b) Procedure

Subject

- i. Dress in light clothes and take off any footwear.
- ii. Stand on the scales.

Measurer

- i. Place the scales on a firm surface.
- ii. Read the weight from directly above the scales to the nearest 0.5 kg.
- iii. Record the weight measurement here: ____kg.

Note: Always wear similar clothing when being weighed.

3. BMI calculation

(a) Equipment

– Calculator or BMI chart

(b) Procedure

i. Using calculator

ii. Using chart

Example:

Height: 1.60 m, Weight: 75.5 kg

BMI = weight ÷ (height x height)

= 75.5 ÷ (1.60 x 1.60)

= 75.5 ÷ (2.56)

= 29.5

This person is considered overweight but not obese. The BMI chart is a visual way of presenting the information.

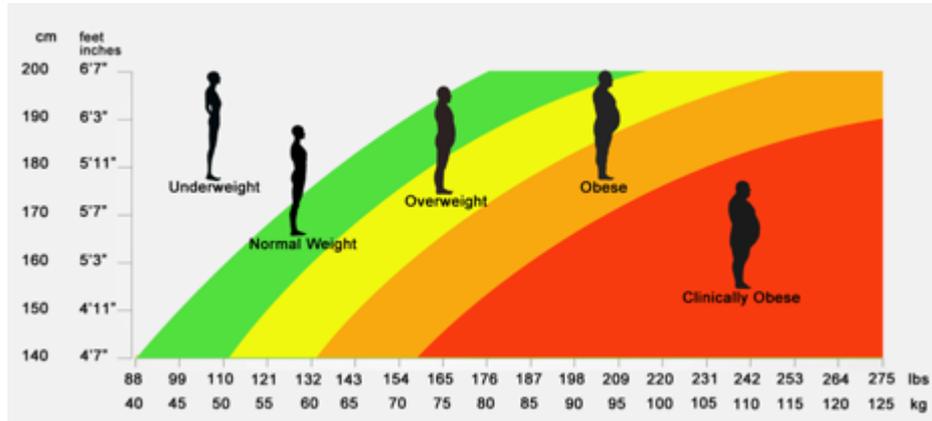
Your BMI

Now calculate your BMI using your height and weight measurements recorded earlier.

= _____ kg ÷ _____ m x _____ m

= _____

BMI chart



4. Waist circumference

(a) Equipment

– Measuring tape (centimetres)

(b) Procedure

Subject

i. Dress in a light t-shirt.

ii. Stand relaxed, breathing normally.

Measurer

i. Place the tape around the waist.

ii. Identify the minimum circumference between the lowest rib and the iliac crest (top of the hip bone).

iii. Read the circumference to the nearest millimetre.

iv. Record the circumference measurement here: _____ cm.

5. Interpretation

- As a guide, if your BMI is over 26, consider reducing your weight. A BMI of more than 26 means that you are likely to be overweight (i.e. a bit too heavy for your height). If your BMI is over 32, then you should be seriously trying to reduce your weight.
- As a guide, the recommended waist circumference is less than 94 cm (37 inches) for men and less than 80 cm (32 inches) for women. We recommend that you measure your own waist and set yourself a SMART goal to reduce it if you measure more than the recommended circumference.

Annex 5: Understanding food labels



Australian Government
National Health and Medical Research Council
Department of Health and Ageing

www.eatforhealth.gov.au

HOW TO UNDERSTAND FOOD LABELS

What to look for...

Don't rely on health claims on labels as your guide. Instead learn a few simple label reading tips to choose healthy foods and drinks, for yourself. You can also use the label to help you lose weight by limiting foods that are high in energy per serve.

Nutrition Information		
Servings per package – 16 Serving size – 30g (2/3 cup)		
	Per serve	Per 100g
Energy	432kJ	1441kJ
Protein	2.8g	9.3g
Fat		
Total	0.4g	1.2g
Saturated	0.1g	0.3g
Carbohydrate		
Total	18.9g	62.9g
Sugars	3.5g	11.8g
Fibre	6.4g	21.2g
Sodium	65mg	215mg
Ingredients: Cereals (76%) (wheat, oatbran, barley), psyllium husk (11%), sugar, rice, malt extract, honey, salt, vitamins.		

Total Fat ▶

Generally choose foods with less than **10g per 100g**.

For milk, yogurt and icecream, choose less than **2g per 100g**.

For cheese, choose less than **15g per 100g**.

Saturated Fat ▶

Aim for the lowest, per 100g.
Less than 3g per 100g is best.

Other names for ingredients high in saturated fat: Animal fat/oil, beef fat, butter, chocolate, milk solids, coconut, coconut oil/milk/cream, copha, cream, ghee, dripping, lard, suet, palm oil, sour cream, vegetable shortening.

Fibre ▶

Not all labels include fibre.
Choose breads and cereals with **3g or more per serve**

Ingredients ▲

Listed from greatest to smallest by weight. Use this to check the first three ingredients for items high in saturated fat, sodium (salt) or added sugar.

◀ 100g Column and Serving Size

If comparing nutrients in similar food products **use the per 100g column**. If calculating how much of a nutrient, or how many kilojoules you will actually eat, use the per serve column. But check whether your portion size is the same as the serve size.

Energy

Check how many kJ per serve to decide how much is a serve of a 'discretionary' food, which has 600kJ per serve.

Sugars

Avoiding sugar completely is not necessary, but try to avoid larger amounts of added sugars. If sugar content per 100g is more than 15g, check that sugar (or alternative names for added sugar) is not listed high on the ingredient list.

Other names for added sugar:

Dextrose, fructose, glucose, golden syrup, honey, maple syrup, sucrose, malt, maltose, lactose, brown sugar, caster sugar, maple syrup, raw sugar, sucrose.

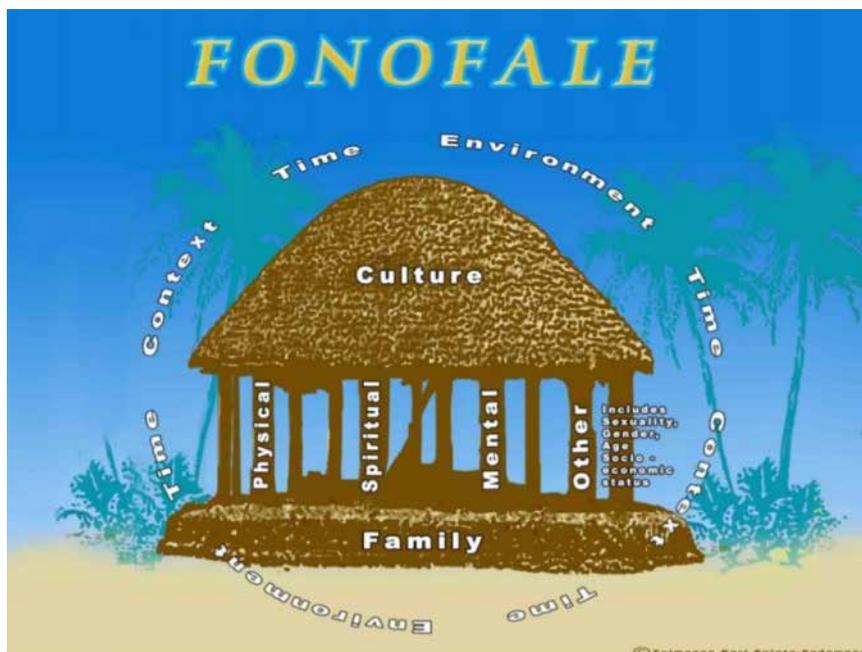
◀ Sodium (Salt)

Choose lower sodium options among similar foods. **Food with less than 400mg per 100g are good, and less than 120mg per 100g is best.**

Other names for high salt ingredients:

Baking powder, celery salt, garlic salt, meat/yeast extract, monosodium glutamate, (MSG), onion salt, rock salt, sea salt, sodium, sodium ascorbate, sodium bicarbonate, sodium nitrate/nitrite, stock cubes, vegetable salt.

Annex 6: Fonofale model of health



Source: Fonofale model of health. Available at:

<https://d3n8a8pro7vhmx.cloudfront.net/actionpoint/pages/437/attachments/original/1534408956/Fonofalemodelexplanation.pdf>

- **The foundation.** The foundation represents the *family* (nuclear, extended or constituted), which is the foundation of all Pacific Island cultures.
- **The roof.** The roof represents *cultural values and beliefs* (traditional or western), which shelters the family for life.
- **The pou (posts).** These *connect the family to the culture*. They also depend on each other. They are:
 - *spiritual* – relates to the sense of well-being that comes from Christianity or traditional spirituality or a combination of both.
 - *physical* – relates to the well-being and physical health of the body.
 - *mental* – relates to the mind, including thinking and emotional well-being as well as behaviours.
 - *other* – relates to variables that can directly or indirectly affect health such as, but not limited to, gender, sexual orientation, age, social class, employment and educational status.

The *fale* (house) is surrounded by a protective layer of:

- **environment.** This dimension relates to the relationships that Pasifika people have to their physical environment. This can be rural or urban.
- **context.** This dimension relates to the where/how/what and the meaning it has for that particular Pasifika person or people – the “big picture” for Pasifika people, including legal, socio-economic or political situations.
- **time.** This relates to the actual or specific time in history that impacts on Pasifika people.

Annex 7: Suggested three-day training programme

DAY ONE

TIME	ACTIVITIES AND LEARNING MODULES	POWERPOINT SLIDES
8:00 am	Registration	
8:30 am	Opening prayer	
9:00 am	Welcome and opening remarks	
9:30 am	Introduction of participants and workshop expectations About the manual: Background, purpose, use, etc.	
10:00 am	MORNING REFRESHMENTS AND GROUP PHOTO	
10:30 am	<i>Module 1: Food and diet</i>	
11:30 am	Unit 1: Eat a variety of foods Unit 2: Vegetables and fruits	
12:30 pm	LUNCH BREAK	
1:30 pm	<i>Module 1: Food and diet</i> Unit 3: Salt, fat and sugar	
3:30 pm	AFTERNOON TEA BREAK	
3:45 pm	<i>Module 1: Food and diet</i> Unit 4: Food safety Unit 5: Safe water	
4:30 pm	END DAY 1	

DAY TWO

TIME	ACTIVITIES AND LEARNING MODULES	POWERPOINT SLIDES
8:00 am	Morning prayer	
8:30 am	Key learning from Day One sessions <i>Module 2: Tobacco, drugs and betel nut</i> Unit 2.1: Tobacco Unit 2.2: Drugs Unit 2.3: Betel nut	
10:30 am	MORNING REFRESHMENTS	
11:00 am	<i>Module 3: Alcohol, kava and home brew</i> Unit 3.1: Alcohol Unit 3.2: Kava Unit 3.3: Home brew	
1:00 pm	LUNCH BREAK	
2:00 pm	<i>Module 4: Physical activity</i>	
3:30 pm	AFTERNOON TEA BREAK	
4:00 pm	<i>Physical activity session – e.g. aerobics, Zumba</i>	
4:30 pm	END DAY 2	

DAY THREE

TIME	ACTIVITIES AND LEARNING MODULES	POWERPOINT SLIDES
8:00 am	Morning prayer	
8:30 am	Summary of Day Two sessions <i>Module 5: Life-course approach</i>	
10:30 am	MORNING REFRESHMENTS	
11:00 am	<i>Module 6: Well-being – Take time to relax</i>	
1:00 pm	LUNCH BREAK	
2:00 pm	Summary of course and final Q&A Evaluation of training Closing remarks	
3:30 pm	AFTERNOON TEA BREAK END DAY 3 and Training	

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