



Healthy eating for preschool children

A training workshop for teachers and cooks

This facilitator's guide is written to guide members of the Association for Dietetics in South Africa (ADSA) and staff of the Department of Health (DoH) when planning and implementing events during National Nutrition Week 2010.

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1. Introduction

National Nutrition Week (NNW) is celebrated in South Africa in October each year, ending near World Food Day (16 October). The week is an awareness campaign, during which messages on an identified theme are communicated.

It is recognised that an awareness campaign, such as conducted during NNW, will not necessarily lead to behaviour change. However it still requires a large amount of work, and potentially budget. This project provides an opportunity for smaller projects to be implemented, which can build on the overall communication during the week.

Work done at national level by the joint NNW planning committee will include the preparation and distribution of a teacher support pack for preschools / crèches. This pack will have ideas for teaching around a nutrition theme at the time of NNW.

The proposed joint project is based on this foundation, but adding an activity that may help improve quality of menus prepared at schools, and thus contributes to improved nutrition of children. The suggested workshop format and content has planned centrally, to prevent work duplication, but may be adapted at local level.

It is suggested that local project teams should identify how many workshops they will be able to run, and how many delegates they can accommodate at each. A suitable date should be suggested by delegates, and based on that a venue identified.

The project is to offer a workshop for teachers / cooks, run by dietitians and nutritionists from ADSA and / or Department of Health. Schools may be indentified through local clinics, the Department of Social Development or local contacts. The day most suitable for the workshop should be identified at local level, and the venue agreed. This may be one of the schools, a church hall, clinic or community building.

The event should be fun – with a combination of cooking demonstrations, information on nutritional needs of children, menu planning and food safety.

The ADSA PR portfolio holder (in conjunction with DoH counterpart) should use the occasion to generate local media coverage.

NNW and workshop aims

The message objectives for the broader NNW project are knowledge acquisition. A specific objective for each local project may include behaviour change.

Knowledge

- ✓ The four guidelines for healthy eating for children that are used to plan good mixed meals:
 - ✎ Make starchy foods the basis of a child's main meals (including information on fortification)
 - ✎ Children need plenty of vegetables and fruit every day (including information on beta – carotene rich sources)

☞ Children need to drink milk every day

☞ Children can eat chicken, fish, meat, eggs, beans, soya or peanut butter every day.

- ✓ Children should be able to identify commonly eaten foods that fit into each of these groups.
- ✓ Children should be able to identify “fun foods” that are not core to healthy eating plans.

Practice

- ✓ Children should be able to describe what they can do to make their own eating plan as healthy as it can be.
- ✓ Teachers and cooks should be able to apply these guidelines to plan and implement a suitable menu for the children at school.

Specific objectives for the workshop part of the project (for teachers and cooks) are to be agreed at project level:

- ✓ To reach xx teachers / cooks from yy schools in zz regions through workshops
- ✓ Participants are to be shown how to prepare three nutritious, cost effective dishes that can be prepared at crèche / preschools, based on these four guidelines for healthy eating
- ✓ These workshops are to be held in October 2010.
- ✓ Media that will be targeted to extend the reach of the messages will be planned locally.
- ✓ Reports and evaluations are to be submitted before the end of November 2010 (including information on changes made to menus / methods at schools).

Target group

The target audience for NNW 2010 was identified by the provincial nutrition sectors of the Department of Health, and agreed by the planning committee. This is children aged 4 – 6 in crèches / preschools and their teachers and cooks.

These children will come from all race groups, income groups and residential areas.

The priority audiences within each area should be determined by the local project team. It will be influenced by practical matters such as accessibility of audiences and availability of people do to the work.

Workshop materials

Materials that can be used to plan and implement the workshop include:

- Teachers support pack – available on the website of the Department of Health www.doh.gov or www.adsa.org.za (follow NNW link from home page).
- Facilitators Guide.
- Teaching aids, as recommended in the teachers support pack.
- Sentence cards of the guidelines for healthy eating.
- Flash cards with food pictures.
- Flip chart and pens for menu planning.
- Ingredients and cooking equipment to prepare recipes to be demonstrated.

2. Opening

Welcoming the participants

Begin this session by welcoming all to the workshop.

Introduce yourself, and your co-presenters.

Ask each participant to introduce themselves and to state where they work.

Give a brief overview of the workshop and the programme.

Where appropriate open with prayer and a song.

3. The importance of good nutrition for children

Participative discussion

Ask participants to name foods that are commonly eaten in their area. Go around group to give all a chance to participate.

Write the foods up on the flip chart.

If some food groups are not represented give participants clues to identify those foods. The list should have nutritious and less nutritious options.

Ask participants:

- Which foods are the ones that children like to eat most often?
- What happens to children who make poor food choices most of the time, compared to children who have a healthy eating plan?

Write on the flip chart – possible answers include

- Children who are better nourished are able to learn better.
- Healthy eating helps young people grow and develop.
- Children who are undernourished for long periods are more likely to become sick.
- Children who do not eat in the mornings may have difficulty learning during the day.

Add any extra points that may not have been raised.

- Scientific studies show that many people in South Africa do not eat the variety and amount of food needed for the best health.
- Some of these people are able to afford most types of food, but they are not interested in changing the way they eat.
- They may not be aware of what they are doing wrong, and they will benefit from learning about good nutrition.
- Some may have good knowledge, but their attitude prevents them from putting this knowledge into practice.
- Other barriers may prevent healthy habits, such as the non-availability of the best food choices, a shortage of money, or other more pressing health concerns.

The information below may be included at this stage, and then revised where relevant in the next session.

Some important information about nutrition for children in South Africa is to learn about vitamin A and iron.

In South Africa, more than half of children under the age of 9 have a vitamin A deficiency. The body's immune system cannot function well without adequate levels of vitamin A.

Vitamin A helps to prevent infections by keeping all the cells on the surface of the body healthy. This includes the surface of the eyes, inside the mouth, the cells that line the gut, and the cells that line the respiratory tract. Vitamin A and iron help the body function and grow properly. Children in South Africa who are under the age of 5 should be taken to a clinic every six months to receive vitamin A drops. This is to ensure that they get enough of this important vitamin.

More than one in 10 children under the age of 9 has an iron deficiency. The body uses iron to make haemoglobin, which is a protein in red blood cells that carries oxygen around the body. Children who are iron deficient may have impaired learning and development, lower height, feel tired and have a weakened defence against infections.

Iron is a difficult nutrient to get from food, as most types of food only have a small amount of iron. A deficiency may be because the child gets too little iron from the food he or she eats, the iron is poorly absorbed, or there is a loss of iron through a loss of blood (e.g. from worms in the intestine). Food that is rich in iron includes meat, liver, eggs, dark-green leafy vegetables and beans. Some types of food are enriched with iron, like some breakfast cereals. The absorption of iron is increased by eating food that is rich in vitamin C during the same meal, e.g. vegetables and citrus fruit. The absorption of iron is decreased by consuming food with tannin (tea) or too much whole-grain cereals during the same meal.

4. Guidelines for healthy eating for children aged 1 – 7

Optimal nutrition is the best nutrition for a person. A person can achieve optimal nutrition if he or she follows a healthy eating plan most of the time. This must include a variety of food, eaten in the correct amounts. It must not include more food than is needed.

Ask participants:

- What are some of the things we should do to eat well?
Get as many ideas as possible, tell participants that some information we learn about healthy eating may not be correct.
Ask for ideas that are correct and incorrect (myths)
- Acknowledge those that are accurate and repeat.
Discuss myths and why they are inaccurate – clarify any that have potential nutritional harm.
- If participants do not raise their own points include some such as, discuss those that are accurate or not:
 - Is the most expensive food the best food?
 - Is it important for children and adults to eat vegetables?
 - Is it OK to eat vegetables only on the weekend and not during the week?
 - Is it essential for children to have 100% juice to drink?
 - Some foods in South Africa are fortified to make it easier for us to get all the nutrients we need
 - Good hygiene is also important.
 - Healthy food does not taste good.

Explain:

- Eating is an important part of everyone's life. Food is chosen for many reasons – not just for nutrients, but also for enjoyment and pleasure. Eating may be a chance to sit down with friends and family, or it can be a rushed event just because you are hungry.
- Following a healthy eating plan does not mean missing out on the enjoyment of food. All food can be enjoyed in a healthy eating plan; some food should be eaten often, and other food may be enjoyed occasionally in smaller amounts.
- Different types of food have different nutrients. No single nutrient is the most important, and no single food is the most important. No food can be called 'bad' food. What is important is learning how to plan food choices so that all nutrients are included, and so that the right amount of food is eaten.
- A healthy eating plan has a number of good mixed meals a day. Each good mixed meal should be planned using the guidelines for healthy eating. Mixed meals usually include food from different food groups, so that a variety of nutrients are provided.
- Some people need to eat snacks between meals to provide more nutrients, especially energy. These people should choose snack food that contributes to the nutrients needed by the body.

Some people eat snack food that has little nutrients, but is still expensive or contains too much energy. Snack food with little nutrients and a lot of energy should never be eaten instead of good mixed meals. This food can be enjoyed as a treat or on special occasions. Examples of food with a lot of energy but little goodness are chips, cheese-flavoured chips, biscuits, cold drinks and sweets.

- The amount of energy you get from the food you eat during meals and as a snack should be the amount needed for growth or to maintain a healthy body weight. It is not healthy to be too heavy or to weigh too little.

Energiser – song, can be sung as a round

Enjoy a variety of food (to the tune of "Frère Jacques")

Food is special.
Food is special.

Eat it to stay healthy.
Eat it to stay healthy.

Good for me.
Good for me.

Enjoy it too.
Enjoy it too.

Group work

Give each group one sentence card with a guideline for healthy eating written on it. The guidelines are:

- Make starchy food the basis of a child's main meals
- Children need plenty of vegetables and fruit every day
- Children need to drink milk every day
- Children can eat chicken, fish, meat, eggs, beans, soya or peanut butter every day

Ask each group to discuss the following points about their guideline

- Which foods on the flip chart are foods that fall in this food group?
- Are there any other foods that are eaten by children in your community that can be included in this group?
- Do you think it is possible for families in your community to follow this guideline? If not, are there ways to help them to be able to do so?

Groups to give feedback on their guideline.

Discuss all guidelines after all groups have given feedback.

The information below can help to guide your discussion.

Make starchy food the basis of a child's main meals

Starchy food like maize meal, bread, rice, samp, pasta, potatoes, sweet potatoes, porridge and breakfast cereals is an important part of a healthy eating plan. The best choices are food that is minimally processed, such as whole grains (whole-wheat, barley, brown rice, cut corn, mealie on the cob, oats, whole-grain breakfast cereal and popcorn), and fortified starchy food.

Starchy food is usually eaten at most meals, and is often the food that fills you up. Starchy food should form the central part of the meal, and may be eaten in larger amounts than other types of food. People with high energy needs (like active men and boys) can eat more of the starchy food to meet their higher energy needs. Other food should be added to the starchy food to provide a variety of nutrients. Different types of food can be added at different meals.

Starchy food contributes many different nutrients to the body. Because this food is often eaten in large quantities, this contribution is important. Starch is a kind of carbohydrate, and starchy food supplies most of the energy in a healthy eating plan. Starchy food also supplies protein to the body, and many types of starchy food has fibre, vitamins and minerals.

Some types of starchy food have extra vitamins and minerals added to them. In South Africa, all maize meal and bread flour (and so bread) must have certain vitamins and minerals added. These are nutrients that were shown to be in short supply in the diets of many people. This type of food is called fortified food, and these are good food choices. Some other types of food may also have vitamins and mineral added, but not by law. This food is called enriched food. An example of a food category that is often enriched is breakfast cereal.



Children need plenty of vegetables and fruit every day

Cabbage, pumpkin, spinach, wild leafy plants, tomatoes, onions, beetroot, avocado pears and green beans are examples of vegetables that are commonly eaten in South Africa. Oranges, apples, bananas, pineapples, paw-paw, mangoes and grapes are examples of fruit that is commonly eaten in South Africa. It is best to have a variety of vegetables and fruit to ensure that many different nutrients are obtained. Fresh and frozen varieties are usually the most nutritious. Sometimes canned vegetables are convenient (e.g. tomatoes), or sometimes canned fruit is used for a treat (e.g. canned peaches).

Vegetables and fruit provide a wide variety of vitamins. Some kinds also supply a lot of fibre, especially those kinds where the skin is also eaten.

Most people do not eat nearly enough vegetables and fruit. The minimum amount needed is five portions a day, with one portion being one small piece of fruit or half a cup of vegetables. This is achievable, especially when some kind of vegetable or fruit is eaten at each meal. Larger servings of some vegetables can be eaten, so that two portions are eaten at once. If fruit is expensive, more vegetables can be eaten. Food gardens can be established at home and in communities to grow more vegetables and fruit.

Dark-green vegetables and dark-orange vegetables are good sources of beta-carotene. This is a substance that is converted into vitamin A in the body. Many people in South Africa, especially children and pregnant women, do not get all the vitamin A they need each day. They should try to eat at least one serving of this type of food each day. Examples of this type of food are spinach, imfino, pumpkin, carrots, butternut, paw-paw and mangoes. Fat is needed in the same meal to help the body use the beta-carotene.

Children need to drink milk every day

Everyone should try to have some milk each day. Children should aim to drink one to three cups of milk a day, because their needs for calcium are high (for growing bones and teeth). Unfortunately, many people do not drink enough milk, especially children and pregnant women. Coffee and tea creamers and condensed milk do not provide the nutrients of milk and are not a replacement for milk.

When children are growing, their bones are getting longer and stronger. Calcium is needed for this. The calcium that is deposited in bones during childhood and adolescence is used by the body right through adulthood.

Children can eat chicken, fish, meat, eggs, beans, soya or peanut butter every day

This type of food is a good source of proteins, which are used for building and repairing body tissues. This food also contains important vitamins and minerals, e.g. iron is found in meat.

When this type of food is included in processed food (such as meat pies), there is less meat and more filler. This is not a good food choice. Fast food that is cooked in oil (such as fried chicken) is also not a good food choice for regular eating.

Most people like to eat meat and chicken, and some people eat too much of this type of food. This food should be eaten in smaller portions. A piece of meat the size of your palm is an example of a portion of meat. The rest of the plate can be filled with vegetables and starchy food.

Energiser – song: We keep healthy (to the tune of “Here We Go Round the Mulberry Bush”)

These are things that we must do,
we must do, we must do.
These are things that we must do
to keep our bodies healthy.

Drinking milk will help us grow,
help us grow, help us grow.
Drinking milk will help us grow.
Drink it every day.

We must all eat starchy food,
starchy food, starchy food.
We must all eat starchy food
every single day.

Chicken, fish and beans and eggs,
beans and eggs, beans and eggs.
Chicken, fish and beans and eggs
are foods we can enjoy

We must all eat veg and fruit,
veg and fruit, veg and fruit.
We must all eat veg and fruit,
plenty every day.

5. Menu planning

Menu planning exercise

Ask participants to explain a typical days meals and snacks for children in their care.

This may include breakfast at home or school, a mid morning snack, lunch, mid afternoon snack, evening meal; and possibly others.

Using this plan of typical meals and snacks help participants to plan a day’s menu, using the guidelines for healthy eating.

- Start by naming a starchy food that can be eaten at each meal, and possibly some snacks.
- Add in vegetables and fruit.
- Include milk, yoghurt, cheese, or maas.
- Include chicken, fish, meat, eggs, beans, soya or peanut butter in realistic amounts recognising that some options are expensive.

Ask participants to work in pairs or groups to plan another day’s menu, using different food options.

Foods that do not supply nutrients to the body may be included on occasion, but should not replace food choices that supply nutrients. They should not be used when money for food is very limited.

6. Recipe ideas

This session should be done as a cooking demonstration. Some foods should be pre-prepared, so that a completed dish can be tasted by all at the end.

The demonstrator can call on audience members to help. During the demonstration information about the foods can be revised.

Cooking in a hay box

Cooking in a hay box is a way to save money. There are different types of hay boxes, all are easy to make.

A newspaper box is made as follows:

- Take any wooden or cardboard box, such as an apple box with a lid that fits well.
- Line the bottom of the box with newspaper, about 2cm.
- Make a lot of balls of newspaper, each a single sheet, and pack these inside the box.
- Leave enough space to fit your pot.
- Have a thick layer of paper ready to place over your pot when the box is being used.

How to use the haybox

- Food that usually takes a long time to cook can be done in the haybox to save money.
- Dry beans should be soaked for about 4 hours (or overnight) in water. Discard this water. Place beans in pot and bring to the boil. Boil for 5 – 15 minutes, depending on the size of the beans. The last part of the boiling must be with the lid on. Place in the haybox for 4 hours, or overnight.
- Samp and beans should be soaked overnight. Add salt and boil for 25 minutes, leave in the haybox for 8 hours.
- Never look inside the haybox when food is cooking as this lets the heat out.
- Never put work or half eaten food back in the haybox as the food can then go bad.

Butternut Soup

10 portions	40 portions	60 portions	INGREDIENTS	METHOD
60ml 1, large	250ml 5, large	360ml 8, large	Sunflower oil Onions, chopped	Heat the oil and sauté onions until they are golden brown
4ml ½ml	15ml 2ml	25ml 3ml	Curry powder Ground ginger	Add the spices and cook for two minutes, stirring all the time.
750g 1 3 1ml 250ml 15ml	3kg 5 10 5ml 1 litre 60ml	4.5kg 8 14 7.5ml 1.5 litre 90ml	Butternut, cubed, peeled Potatoes, cubed Apples, peeled, chopped Salt Milk Chicken stock powder	Add butternut, potato, apples, salt, milk, stock powder and water only to cover. Bring to the boil, then reduce heat and simmer for 25 minutes. Remove from the heat and strain, reserve liquid.
As needed	As needed	As needed	Water	Mash the vegetables with a potato masher, return reserved liquid to pot. Add additional boiling water to make to desired volume.

Fun coleslaw

10 portions	40 portions	60 portions	INGREDIENTS	
200g	750g	1200g	Cabbage, red, sliced	Prepare vegetables Mix together
250g	1000g	1500g	Cabbage, green, sliced	
75g 250g	300g 1000g	450g 1500g	Spinach, shredded Carrots, grated	
60ml 60ml 7.5ml	250ml 250ml 30ml	350ml 350ml 45ml	Mayonnaise Yoghurt, plain or fruit Sugar	Mix mayonnaise, yoghurt and sugar.
				Pour dressing over vegetables and mix.

Spicy lentil curry and rice

10 portions	40 portions	60 portions	INGREDIENTS	METHOD
				Preheat oven to 180°C
50ml 2 large 1 5	200ml 8 large 4 20	300ml 12 large 6 30	Oil Onion, chopped Pepper, green, chopped Carrots, grated	Heat oil and sauté onion, green pepper, celery and carrots until softened.
10ml 5ml	40ml 20ml	60ml 30ml	Curry Turmeric	Add curry and turmeric and stir over low heat for a few minutes.
375ml (300g) 3 cups 5ml 10ml 150ml	1500ml (1200g) 12 cups 20ml 40ml 600ml	2250ml (1800g) 18 cups 30ml 60ml 900ml	Lentils, brown Water Salt Sugar Tomato puree	Add lentils, water, salt, sugar and tomato puree. Mix well and spoon into large baking dish.
				Cover and bake for 1 hour, stirring twice. Alternatively simmer gently on stove, or cook in hay box.
250g 5ml	1000g 20ml	1500g 30ml	Rice, raw Water Salt	Cook rice in boiling salted water, drain.
25ml 25ml	100ml 100ml	150ml 150ml	Peanut butter Plain yoghurt.	Mix peanut butter and yoghurt. Spoon onto lentil curry and rice after serving.

7. Close and thanks

Thank participants for attending, and encourage them to give feedback to friends and colleagues.

Close with prayer where appropriate.