

**REGENERATIVE HEALTH
& NUTRITION**

**TRAINING OF TRAINERS
FACILITATOR'S GUIDE**

Ministry of Health

FOREWORD

The primary responsibility of the Ministry of Health is to assist everybody living in Ghana to enjoy the highest level of health and well being that is humanly attainable. When people are very healthy, they are more productive, earn higher incomes, enjoy higher standards of living, are better able to take care of their respective families and have greater meaning to life. Meanwhile, they place less strain on the national health budget.

All sub-Saharan nations, including Ghana, currently suffer a dilemma of intensifying levels of two types of health problems that defy easy solutions. One of them deals with the age-old and defiant diseases caused by parasites getting into our bodies from insect bites (such as Malaria), consuming infected substances (such as Cholera, Typhoid or Hepatitis) or breathing infected air (such as Cerebrospinal Meningitis).

The second set of diseases is relatively recent and is increasing at a faster rate in the developing countries than elsewhere. These include: stress, hypertension, heart diseases, stroke, obesity or excess weight, underweight, ulcers, constipation, piles, diabetes, arthritis, drug abuse, gout, male impotence, early puberty, HIV-AIDS and several more.

As has conclusively been demonstrated globally, health care goes far beyond cures for diseases or a sick-care system that often turns into chasing the horizon. It is not the disease which must stop, but ignorance and the resulting pollution of the body that need to be seriously addressed. In this regard, there is a great deal of wisdom in the following observation:

“Every human being is the author of his own health or disease.” – Buddha

Indeed, stacks of research results conclusively demonstrate that unhealthy lifestyles in consumption and in our daily physical activities make us weaker and prone to infectious diseases, as well as being the exclusive cause of all the new diseases. Unfortunately, existing treatments for most of these new diseases are very expensive and not affordable for average families worldwide.

Apart from the Government continuing to improve the delivery of curative care, there must be greater personal contributions by each of us toward lowering the costs of achieving wellness. A very important recent innovation toward this objective by the Government is the National Health Insurance Scheme (NHIS)

Meanwhile, ever since December, 2007, the Ministry of Health has been engaged in an increasingly intensifying and propagating information on regenerative health and nutrition. This strategy is directed at individuals, families and communities and actions that include health promotion and prevention of ill-health.

This initiative by the Ministry has been inspired by principles and practices of this approach as implemented for almost four decades by the entire community of African Hebrew Israelites, in the “Village of Peace” in the southern Israeli town of Dimona. Hence, it is known as the “Dimona model”. Since most medicines trace their origins to the plant world, one of the few pillars of this Dimona strategy

for wellness is endorsed by the Bible in Ezekiel: 47:12 and also by no less personality than the father of modern medicine:

“Let food be your medicine and medicine be your food”-Hippocrates

The message of regenerative health and nutrition is contained in two manuals: (a) a power-point type of summary for use in instructing trainers of trainers and (b) its reference or source material. Both documents are mutually supportive. Obviously, most people might never participate in these sessions of instruction. Accordingly, the Ministry of Health is making these manuals available to all members of the general public who wish to acquire their own copies. It is my hope and prayer that those who benefit from studying the contents of these manuals would gradually wean their bodies into a fresh lifestyle that has been proven to be truly regenerative.

**Major Courage E.K Quashigah (rtd)
Minister of Health**

INTRODUCTION

The principles and practices of the Regenerative Health and Nutrition Programme outlined or summarized in this text are derived from the Dimona Model. This document is a companion to a more comprehensive reference material – the “**Source Manual.**” Both documents form a set of instruction material for use with trainers of trainers. The Dimona Model is actually a comprehensive social structure or a way of life that has been developed and practised for almost 50 years by African-Hebrew Israelites who live as a community in the southern Israeli town of Dimona. These Africans have committed themselves to developing and living a social structure – a living example -- that reflects a practical application of the laws of nature to modern times.

It is their belief that nature has an established code of conduct that would sustain human beings in enjoying long life spans of excellent health. This code of conduct derived from nature is for all practical purposes a book of instructions for healthy living. After almost 50 years of living the Dimona model, it has produced measurable results for both genders of all ages within the community. Therefore, here is a living book that visitors can go to experience for themselves. A living testimony of this nature is definitely far superior to theories about healthy living that come out of typical research projects that use selected samples involving a relatively few people.

The Dimona philosophy is a system of beliefs and practices that African-Hebrew Israelites live in their community that they call the “Village of Peace.” Therefore, the set of principles of regenerative health contained in this document is one principal pillar of community life. The following are among the most significant tenets and features of the Dimona model:

- A healthy and long life is achieved and experienced through obeying the laws of nature.
- Family life is essential, with men and women maintaining distinct but complementary roles in raising their children, in conformity with the Dimona philosophy and principles of life.
- Adults share responsibility for the welfare of all children in the community or village.
- Education becomes “Dedication,” in the sense that the learning process seeks to make the student to be dedicated to God and to obey His laws. This is the only way in which human beings can truly enjoy prosperity and well-being on Earth. Accordingly, educating the youth or raising them eventually to be dedicated to the laws of nature is collectively financed by the entire Dimona community.
- Violence and self-destructive behavior, such as drugs and alcohol abuse are prohibited.
- Social life is rooted in the principle of people-to-people ecology. This means that, since human beings have been created to live in interdependence, individuals must always be aware of this condition of our human condition and avoid predatory and other actions that have negative impacts on other persons in the community.
- The economic order is based on the sharing of resources and therefore getting rid of greed. Accordingly, members share in operating community-based enterprises and in the profits that these businesses generate. This is derived from absolute trust and integrity among the members of the society.

As can be seen from the principles listed above, ultimate emphasis is placed upon human beings living in harmony with one another and with the environment. Accordingly, stress in modern living is drastically reduced to its barest minimum.

For the most part, the practices listed above have been inspired and indeed adopted from African traditions of the past. Therefore, the Village of Peace represents in effect a modern African Village.

The health aspects of this manual are founded upon a simple, yet profound holistic platform. Humankind can enjoy long and healthy life spans, if they pay attention to a total lifestyle and especially two aspects of it. One of them is whatever we eat and drink. The other is our respective levels of regular physical activity. In reality, good health begins in the home, but not in the hospital or clinic. In relation to all these issues, research has shown that plant foods that are eaten in the right amounts and proper combinations can provide all the essential nutrients necessary for the maintenance of the highest level of health and the prevention of illnesses. A regenerative diet aims to maximize the use of nutrients in plants for the restoration and nourishment of the body, including boosting the immune system of the body.

The Dimona model advocates for the use of organic, non-processed foods wherever possible, with emphasis on the consumption of lots of vegetables, fruits, whole grains, nuts, seeds and natural food supplements. This lifestyle, combined with: (a) regular physical exercise, (b) taking in adequate amounts of potable or clean water, (c) sufficient rest, and (d) attention to personal and environmental sanitation, form the basis for the eradication of most common communicable and non-communicable diseases of today. **It is worth noting that regenerative health and nutrition is an alternative health paradigm to other health paradigms or systems. The nutrition component in particular does deviate from what is generally known.**

This manual focuses on three basic areas of instruction and training. These are:

- Water and Nutrition
- Mother and Child Health
- Healthy Lifestyles

The implementation of the associated tenets will lead to healthier individuals and, therefore, a healthy nation.

FOR WHOM HAS THIS MANUAL BEEN PRODUCED?

This manual is meant for use in instructing trainers from diverse backgrounds. This list would include: health-sector workers, teachers, community-based workers, Non-governmental organizations (NGOs), agricultural extension officers, traditional and alternative-medicine practitioners, faith-based organizations and all other bodies that work to improve conditions within their respective communities.

This manual provides an in-depth understanding of the Dimona model of healthy living. The training is experiential and practical. Therefore, all those who benefit from this instruction are

expected to be competent enough in transferring skills they have acquired to others who, in turn, can serve as agents for change wherever they may be. For more than two decades now, the UN World Health Organization (WHO) has been warning that lifestyle diseases have compounded health problems in most developing countries, including those in Africa. This is because, in addition to their enormous problems with inability to rid themselves of various communicable diseases, they now have the highest rate of growth worldwide in people suffering and dying too early from various lifestyle diseases, such as hypertension, heart problems, obesity, diabetes, etc. As demonstrated in the Village of Peace, the Dimona model of regenerative health has proved its effectiveness beyond all doubt.

Concepts related to Change Agents and Advocates

The regenerative health and nutrition programme has three main components: (a) training, (b) communication and (c) service provision. The idea behind training is to produce and multiply the number of “change agents” and “advocates” at the district and community levels. A “change agent” is one who has received adequate training and can serve as a role model in his or her community. He or she helps to provide guidance and encouragement to members of the community who would like to follow the path of regenerative health.

Ideally, each community should have at least the following four change agents:

- A specialist in matters related to physical exercise;
- A specialist in maternal and child health;
- A specialist in nutrition or food catering services, and
- A specialist from the health facility (where health facilities exist).

These individuals serve as reference points for those who want to take up regenerative health.

There can be as many advocates as is possible. These can be chiefs, politicians, civil servants, pastors, etc who can provide a certain level of knowledge on regenerative health to residents of their respective communities. Indeed, there are already many people from all walks of life in Ghana who have received training as advocates within their respective communities. In addition, many who have experienced the benefits of regenerative health are serving as advocates to their neighbours and colleagues.

The role of health facilities.

Health facilities in districts and sub-districts should provide support to change agents and advocates. They should set-up regen (is the underlined word a technical term or a colloquial or informal one?) corners to which change agents and advocates can refer potential “converts.” They should provide information to these potential “converts” and have a system for encouraging them to practise regen (is the underlined word a technical term or a colloquial or informal one?) lifestyles that enhance their own health and that of their respective families.

In addition, this manual proposes the following activities for health facilities:

- Taking of blood pressure for all persons, including obese children.
- Checking of blood sugar levels of all persons above 40 years of age.
- Checking the Body Mass Index (BMI) of all patients.
- Checking the cervix and breasts of all ladies
- Checking, through anal examination, the prostate of all men above 40 years of age
- The catering services in all hospitals should feed patients suffering from non-communicable diseases with low-fat diets. If possible, these patients should be placed on vegetarian diets. Indeed, the natural reaction of patients who are seriously ill is tolerance for food items from plant sources but to have no appetite for food items derived from animal sources.
- Hypertension and diabetics clinics should integrate regen presentations into their health-care programmes
- All patients should regularly be taken through light physical exercises adapted to suit their respective conditions.
- All community-based health workers (e.g. community and public health nurses) should integrate regen health into their activities
- Regen corners should be set up in all hospitals at which clients can have access to information on regen health.

MODULE ONE: WATER AND NUTRITION

Session 1

THE HEALTH BENEFITS OF WATER

Terminal Competence

1. Appreciate the daily amount of water each person has to take for healthy living
2. To get people to drink adequate amounts of water at room temperature

Specific Objectives

1. Describe the concept of water for healthy living
2. Explain what water does in the body
3. Measure the daily amounts of water to be taken for good health
4. Explain the effects on health of shortage of water levels in the body
5. Prepare rehydration fluid in line with the specified formula
6. Outline the adverse effects of other liquids in the body
7. How to harvest, protect, and preserve water for use
8. Explain the mechanism and benefit of using charcoal filters for purifying water

Material resources required

Containers for collection of water (e.g. calabashes), sachet water, sample of fresh water, knife, plates, salt, brown sugar, fruits in season, local corn drink (asana or lehar), non-alcoholic pito (brokutu), photographs of dehydrated conditions

Advance preparation

Review literature, source manual and slides, assemble materials

Duration

3hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
What water does in the body	Questions and Answers Lecturette, Plenary Discussion Demonstration	20mins	What does water do in the body? People can stay without food for several weeks but most people cannot stay without water for more than a few days. The normal body is made up of 70-75% of water. This should be maintained in order to keep all the processes in the body in balance. Water: <ul style="list-style-type: none">• Serves as a medium for all

			<p>body processes,</p> <ul style="list-style-type: none"> • Transports nutrients and other substances throughout the body • Removes and flushes waste out of the body. • Aids digestion, if only it is not taken while eating or less than 30mins before or 1 hour after a meal • Quenches thirst, but thirst is a dehydration crisis that should be avoided • Lubricates joints and organs • The fastest hydration agent • Regulates body temperature <p>The body needs at least 3-4 liters of water at room temperature a day. This is about 6-8 sachets or the equivalent of 8-10 glasses a day or about 4-6 pito calabashes a day. This should be increased when the weather is hot. At the height of the dry season people should take 8-10 sachets of water. It is best when more water is taken earlier in the day.</p> <p>Avoid getting thirsty</p> <p>Avoid drinking of ice-cold water.</p> <p>Reasons</p> <ul style="list-style-type: none"> • Suddenly changes body temperature • Shocks the body • Causes gas in stomach and intestines
Ways to promote the drinking of water	Group and plenary discussion	15mins	<p>Have adequate amounts of potable (safe) water at vantage points in the house</p> <p>Principles of drinking water</p> <ul style="list-style-type: none"> • Drink a minimum of 30mins before and/or a minimum of 1 hour after meals. • Food that is eaten stimulates the flow of saliva and the

			<p>release of various digestive juices in the stomach</p> <ul style="list-style-type: none"> • By diluting gastric juices, water interferes with the digestive process when taken with foods. • Leads to digestive disorders (i.e. gas, indigestion, heartburn, sour stomach) • Partially digested foods remains in the stomach longer than necessary. • Parents should let children see them drinking lots of water. • Water should be provided in attractive containers. • Provide fruits with high water content • Introduce water drinking games/competitions
Symptoms of dehydration	Lecture	10mins	<ul style="list-style-type: none"> • Frequent headaches • Higher body temperature • Tire easily • Dizziness • Depression • Lack of concentration • Forgetfulness • Pass small quantities of urine which may result in kidney failure, etc • False hunger that causes frequent snacking/eating and can lead to obesity
Rehydration Formula	Demonstration and return demonstration	40mins	<p>Rehydration formula: Add half teaspoon of salt to equivalent of 2 sachets of freshly squeezed fruit juice</p> <p style="text-align: center;">or</p> <p>2 sachets or 1 liter of water ½ lemon/lime/orange juiced 1 tablespoon natural brown sugar or honey ½ teaspoon salt</p> <p style="text-align: center;">or</p> <p>2 sachets or 1 liter of water</p>

			<p>1 tablespoon of natural brown sugar or honey $\frac{1}{2}$ teaspoon of salt or Water from 1-3 coconuts (equal to 1 liter)</p> <p>Drink until symptoms are gone.</p>
Healthy choices of social drinks	Lecturette Plenary discussion Field Visits	35mins 60mins	<p>Healthy choices of social drinks</p> <ul style="list-style-type: none"> • Fresh fruits juice • Millet drink (i.e. Zomkom, Jonkoan) • Guinea corn drink (i.e. non-alcoholic; pito - brukutu) • Corn drink - Assana • Sobolo (red zinger) • Ginger drink <p>Use natural brown sugar or honey to sweeten drinks.</p> <p>Diabetes is a debilitating disease. It can lead to</p> <ul style="list-style-type: none"> • Obstruction of circulation of blood in the body, • Surgical removal of toes and legs, • Blindness, • Impotence in men, • Barrenness in women, etc. <p>It is now prevalent because of the high intake of sugar, soft drinks and various beverages, combined with lack of regular physical exercise.</p> <p>When the body is short of water, it may lead to any of several health problems (Refer to “Symptoms of dehydration” above.)</p>
Charcoal Filtration of Water	Demonstration and return demonstration in groups	30mins	<p><u>How to Assemble the Items for Your Filter</u></p> <p>1. <i>Two containers</i>: The one at the top</p>

			<p>has the filtering materials. It also should have enough openings through the bottom to allow filtered water to flow easily down into the second container at the base with a tap for use in fetching the filtered water.</p> <p>2. <i>A suitable suitably porous cloth or membrane:</i> The white cotton fabric used for towels or diapers would do. It could be folded into two or more times and used as the first in the set of filters. It should be porous enough to allow water flow but be able to trap dust and other solid impurities. As soon as this fabric gets stained or discoloured, it should be replaced, washed and kept for later use.</p> <p>3. <i>The filters:</i> Use the following guidelines for producing 100% pure water:</p> <p>(a) <i>The charcoal:</i> Must be 100% charcoal or what remains, after cooking with firewood or after firing any other charcoals and no more smoke is produced from them. Put off the fire and wash off the ash. Thoroughly dry the coals and pound or somehow them to roughly about 1 cm or small but unable to be washed through the thin fabric described in (b) immediately below. Larger pieces cannot be compact enough within the “cushions” described below and unfiltered water would rush through them and render the filter ineffective.</p> <p>(b) <i>Suitably thin and porous fabric:</i> For the top and bottom of the bags or “cushions” to be created, use fabric similar to sieves for flour,</p>
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			<p>porous enough to allow water to flow through but charcoal pieces to remain behind, The fabric for the four sides of these "cushions" should be thick enough to prevent water from easily flowing through the sides where these "cushions" touch the inner wall of the container holding the unfiltered water.</p> <p>(c) <i>Size of cushions:</i> Each "cushion" should be about 2 ins or 10 cm thick. When properly loaded flat with the charcoal, each of them should fit firmly and tightly against the wall of the container and not allow unfiltered water to pass down the edges.</p> <p>(d) <i>The number of charcoal-filled "cushions":</i> Depends on how deep the top container is but would allow enough space for unfiltered water. The sketch in Figure 10.1 has 6 cushions but more can be used. Stacked flat, one on top of the other, the cotton fabric mentioned in item 2 above to be at the very top.</p> <p>4. The top "cushion," the dirtiest of the set should be taken out at the end of between 3 to 6 months or at shorter intervals, depending on the quality of water being filtered. A fresh replacement "cushion" should always be used at the very bottom of the entire set and the previous No. 2 "cushion" now comes to the very top. The contents of the tired "cushion" can then be emptied, the fabric washed and refilled with fresh coarsely-ground charcoal and stored for future use. This system of rotation can be maintained indefinitely.</p>
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			5. Whenever the top “cushion” is replaced, use pure water, soap and a suitable sponge for thoroughly washing the insides of each of the two containers.
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Session 2

NUTRIENTS

Terminal Competence

1. Recognize the nutrients and the amounts required that are important for healthy living
2. Make informed healthy choice of the nutrients required by the body

Specific Objectives

1. Identify the nutrients and the daily requirements for healthy living
2. Explain the functions of nutrients in promoting good health within the body
3. State the dangers associated with some foods we now eat
4. Explain the results of digestion and indigestion on healthy living
5. Use of Soya bean and other legumes as sources of digestible protein

Material resources required

Samples of food items, Posters, audio visual (video), a cake of soap

Advance Preparation

Review manual, prepare Q&A, assemble and test teaching and learning materials

Duration

3 hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction	Lecturette	10mins	Nutrients are what the body needs, especially from balanced diets. <i>The foods we eat now are generally nutritionally inadequate. They contain</i> <ul style="list-style-type: none">• Too much starch• Too much fat• Too much meat (animal, fish etc.)• Too much sugar (e.g. sugary beverages)• Too much salt, and• Too little vegetables and fruits• Do not contain enough fibre (are over-processed or highly refined).
Principles of Regenerative Diet	Lecture	20mins	There is enough evidence that humans can enjoy long and healthy lives, if only we are very careful in the choice of lifestyle, especially our eating habits

		<p>The regenerative diet promotes eating habits based on adequate consumption of plant foods and reduction /elimination of animal products.</p> <p>The principles of regenerative diet are:</p> <ol style="list-style-type: none"> 1. To provide all the essential nutrients necessary for the maintenance of the highest level of health and for the prevention of diseases 2. Aims to maximize the use of natural nutrients present in plant foods for the regeneration and nourishment of the body and build its immunity. 3. To promote the use of unprocessed plant foods - lots of fresh fruits and vegetables, whole grain cereals such as (brown rice), whole meal maize and 4. To promote the use of natural food supplements such as parsley, Moringa, Soy and Soy products, sprouts seeds, molasses, Sesame seeds and others that may be found and purchased locally.. <p>To promote adequate nourishment, particularly for children, pregnant and lactating women and other persons with high nutritional needs, it is important to be very conscious in selecting and combining plant foods. Special care should be taken when combining legumes with other foods in meals.</p> <p>The regenerative diet works hand in hand with the following key practices:</p> <ul style="list-style-type: none"> • Regular Exercise • Breathing fresh air • Drinking a lot of potable water • Getting adequate rest • Maintaining positive mental attitudes
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			<p>All these work together significantly to promote a regeneration of the body toward longevity.</p> <p>For those desiring a successful switch over from the current meat-based diet to a largely plant-based one, one needs a transition phase of between 7 to 12 months. The transition phase consists of steps that include the following:</p> <ul style="list-style-type: none"> • Increase the consumption of fruits and vegetables • Increase the drinking of water • Gradually reducing intakes of dairy, meat, fish and eggs (refer to page....of the source manual)
What are the basic nutrients?	Lecturette	10mins	<p>Basic nutrients (refer to page of the source manual)</p> <ul style="list-style-type: none"> • Protein • Carbohydrate • Fats and oils • Vitamins and Minerals
What nutrients (foods) do in the body?	Questions and Answers, Plenary discussion	20mins	<p>Nutrients:</p> <ul style="list-style-type: none"> • Give us energy to grow and repair the body. • Build the immune system. • Provide us with power to work, think & play. • Cleans the body through toilet, urine and sweating
What do they do?	Group Work and Plenary discussion Demonstration and return demonstration	60mins	<p>Functions in the body.</p> <ol style="list-style-type: none"> 1. Carbohydrates -: provide energy and warmth 2. Proteins - : Body building blocks, growth, repair of damaged tissues and maintenance 3. Fats and oils -: Provide energy and warmth through fat soluble vitamins. 4. Minerals: - Form bones, teeth, are critical in several body processes and protect us from

			<p>diseases. They include: macro elements (Calcium, Phosphorus, Potassium, and Sodium) & micro elements (Iron, Iodine).</p> <p>5. Vitamins: - Protect the body from diseases. Some are carried in our bodies in water (C & B) and others in fat (A, D, E & K)</p> <p>Disorders occur when inadequate amounts of these nutrients are consumed.</p> <p>What are the sources (refer to page ... of the source manual).</p> <p>Local sources and other sources.</p> <p>Summary of Nutritive value of Ghanaian Foods</p> <p>Legumes are good sources of minerals, vitamins and protein but lack one essential amino acid or protein building block (methionine). They are usually classified as an incomplete protein that can be made complete by adding grains to them in meals..</p> <p>Grains contain small amounts of protein but lack some essential amino acids. (e.g., Lysine & Tryptophan)</p> <p>When cereals and legumes are combined in a meal, each contributes what the other does not have. This process, called protein complementarity, creates a meal with all the protein the body needs.</p> <p>Starchy roots and tubers also contain small amounts of protein, some vitamins and minerals</p> <p>When meals come from mainly starchy roots, then vegetables, fruits, legumes & whole grain cereals should form the other meals for the day.</p>
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			<ul style="list-style-type: none"> • Fruits and vegetables are rich in minerals, vitamins and phytochemicals (plant chemicals) & critical for promoting digestion and cleaning the bowels of waste. • Fruits and vegetables should not be eaten together. • Fruits should be eaten a minimum of 1 hour before or after a vegetable meal. • Vegetables should complement all carbohydrate and protein meals <p>Recommended dietary intake (the foods we should eat for good health and how much of each. (Refer to page of source manual))</p>
<p>How the food we eat is processed in the mouth, stomach and intestines</p>	<p>Lecture Plenary discussions</p>	<p>60mins</p>	<p>Food eating goes through</p> <ul style="list-style-type: none"> • Mechanical action in the mouth first to reduce its size into smaller particles through tearing and crushing in the mouth with the teeth and later through churning in the stomach. • Chemical action in the stomach takes place by additions of gastric juices, e.g., hydrochloric acid, bile and enzymes • Absorption of nutrients from digested material into the blood and lymph takes place in the small intestines. • Flushing out of the remainder as waste is through defecation <p>Digestion starts first in the mouth where the teeth must be used to chew the food slowly and thoroughly to mix well with saliva, but never with water, before swallowing</p> <p>Swallowing food (e.g., fufu) without chewing it properly and mixing it well with saliva lengthens digestion and can cause indigestion, constipation, piles, and other digestive disorders.</p> <p>In the mouth, saliva:</p>

		<ul style="list-style-type: none"> • Cleans the oral cavity and liquifies food • Contains an enzyme for breaking down carbohydrates (starch) and sugar to simple forms • Mucin (an enzyme) which helps to soften the food into bolus <p>In the stomach, gastric acid provides a good environment:</p> <ul style="list-style-type: none"> • For the enzyme that breaks down protein into amino acids • Glycoprotein, an intrinsic factor, which helps in the absorption of Vitamin B₁₂ <p>Within the small intestine:</p> <ul style="list-style-type: none"> • Bile from the gall bladder helps to emulsify fats and to neutralize chime (partly digested food mixed with gastric acid) from the stomach • Pancreatic juice contains enzymes (lipase) which breaks down fats into fatty acids & carbohydrates into finer elements (maltase, lactase and sucrose) ,while • Trypsin & chymotrypsin help in breaking down proteins into amino acids <p>Within the large intestine</p> <ul style="list-style-type: none"> • Absorption of water & minerals • Eating ample amounts of fibre (via fruits and vegetables) assists the body in eliminating waste. This eases the stress on the liver and kidneys. • Later flushing out of waste matter (via defecation).
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Session 3

FOOD GROUPS IN GHANA

Terminal Competence

1. Recognize the different foods in the local environment that fall in the food groups and their nutritive values
2. Select their local foods

Specific Objectives

1. List appropriate local foods
2. Explain their functions in the body
3. Identify the nutrients in local food items and their health benefits

Material resources required

Sample of local foods, posters, list of local foods in Ghana

Advance Preparation

Review manual, list of local foods, assemble local foods in season,

Duration 2 hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Carbohydrates	Illustration, Plenary discussion, Group work and presentation Samples	30mins	Food sources of carbohydrate <ol style="list-style-type: none">1. Staples<ul style="list-style-type: none">• Cereals• Starchy roots and tubers2. Sugars Cereals and Grains <ul style="list-style-type: none">• Most common source of food and energy• Whole grains are valuable sources of protein (but lack lysine), iron, vitamin B complex and fibre• Protect the body against chronic degenerative diseases such as cancer, diabetes, heart disease, varicose veins Examples

			<ol style="list-style-type: none"> 1. Maize (Vit B but not Thiamin, B₃) Yellow Maize – Carotene (Vit. A) 2. Rice (B complex vitamins, iron, selenium) 3. Sorghum (prevents cancer and autism; contains no gluten, good for gluten intolerants). 4. Millet (protein has low allergy; is gluten free) 5. Whole Wheat and wheat products (folic acid, zinc, copper, iron, but high level of gluten) <p>Starchy roots and tubers Rich in complex carbohydrates, Vit. B₁, B₆ and C Examples: yam cocoyam, gari, potato, plantain</p> <p>Yam contains phyto-estrogen (plant estrogen) that destroys excess estrogen which relieves premenstrual syndrome and has anti-cancer effects</p> <p>Sugars</p> <ul style="list-style-type: none"> • Quick source of energy • Natural sources, such as fruits & coconut water preferred <p>Refined white sugar contains no other nutrients & consuming it needs to be controlled. It is quickly absorbed into the blood stream and rapidly raises blood sugar with poor sugar regulation. Results in risk of hypertension, obesity, diabetes, heart disease, cancer.</p> <p>Examples of sugars: Jams, honey, brown sugar, white sugar, molasses, sugarcane juice, etc.</p>
Proteins	Illustration, Plenary discussion, Group work and presentation	30mins	Animal sources: - Meat, poultry, fish, dairy products, snails, insects, maggots, cocoons,

	Samples		<p>High in protein, Vitamin A, Bs and iron</p> <ul style="list-style-type: none"> • Lack anti-oxidants, phytochemicals, fibre and do not protect against cancer • Contain too much saturated fat, cholesterol and can cause constipation, piles, hypertension, heart disease & cancer • Ham, bacon, hot dog are preserved with cancer-causing sodium nitrates or nitrites; linked to leukemia, lymphoma, and brain cancer <p>Plant Sources: pulses, nuts, grains, leaves</p> <ul style="list-style-type: none"> • Legumes are pulses and nuts are high in protein (23 – 40%) • Legumes are rich in lysine but lack methionine (Cereals are rich in methionine) • Also source of iron, B vitamins and carbohydrates. • Nuts, soya beans and coconut are high in oil <p>Health Value</p> <ul style="list-style-type: none"> • High fibre • Phytochemicals especially when sprouted • No cholesterol <p>Some contain substances that cause flatulence</p> <p>Leaf protein</p> <p>Moringa – has 2x the protein in cow’s milk, 4x Vit A in carrots and 3x potassium in banana. Prevents about 300 diseases</p> <p>Cassava leaves contain significant protein, minerals and vitamins</p>
Oil/Fat	Illustration, Plenary discussion, Group work and presentation	20mins	<p>Sources</p> <ul style="list-style-type: none"> • Animal - Fat • Fish – Oil

	Samples		<ul style="list-style-type: none"> • Plant – Oil <p>Fats are saturated Oils are unsaturated</p> <p>Local sources of oils: groundnut, coconut, palm nut, palm kernel, soya bean, olive, corn, etc.</p> <p>Method of extraction</p> <ul style="list-style-type: none"> • Chemical extraction uses solvents, evaporates, deodorizers and bleaches to get oil deficient in various nutrients. • Cold-press method retains nutrients and original qualities. • Heat-press applies high temperatures <p>Health Value</p> <ul style="list-style-type: none"> • Fat is a component of cell walls – depending on the type of fat or oil. • Animal fat and margarine make cell walls to be rigid (hardening of arteries) • Plant oil makes them flexible • Consumption of omega 3 contained in unsaturated oils reduces the risk of type 2 diabetes, heart disease, cancers, arthritis, depression, immune disorders, etc. <p>Groundnut is rich in Omega 3</p> <p>Coconut oil has short-chain saturated fatty acid and not harmful. It prevents heart diseases, promotes weight loss, healing of wounds, boosts the immune system,, contains phytochemicals</p> <p>Palm oil – contains beta carotene and phytochemicals</p>
Vegetables	Illustration (sprouts & wheat gluten), Plenary discussion, Group work and presentation	20mins	<p>Rich in vitamins and minerals</p> <p><i>Health Value</i></p> <p>In the raw state. this oil contains</p>

	Samples		<p>phytochemicals. Some phytochemicals are better utilized in the cooked form, e.g. lycopene in tomatoes.</p> <p>Vegetables contribute toward the prevention and treatment of chronic degenerative diseases, e.g., cardiovascular diseases, cancers, arthritis, etc.</p> <p>They are rich in fibre, aid bowel movements, bind cholesterol to them, etc.</p> <p>Examples: Kontomire, Alefu, Borkorborkor, Ayoyo, Sureh (Bra), Baobab leaves, pumpkin leaves, tomatoes, okra, Kwawunsusua, Moringa, garden eggs, Sweet pepper, etc.</p> <p>Cabbage has anti-cancer and anti-ulcer substances.</p> <p>Carrots are rich in b-carotene (an antioxidant that protects cells, prevents cardiovascular diseases, cancer, protects the skin and promotes good vision.</p> <p>Garlic is rich in antioxidants, e.g., potassium, iron and copper. It has phytochemicals that protect against cardiovascular diseases, lower blood cholesterol, fight infections and protect against cancer.</p> <p>Cucumber is high in folic acid.</p>
Fruits	Illustration, Plenary discussion, Group work and presentation	20mins	<p><i>Nutritive value of fresh fruits</i></p> <p>Better to eat the whole fruit. They are Rich sources of vitamins, e..g. Vitamin C, folic acid and minerals such as potassium, and magnesium. Also, they contain natural sugar> limit intake of fruit juices to maximum of 250 -350 mls (2x8oz glasses) daily. Diabetic and gout patients should rather eat the whole fruit.</p> <p><i>Health value</i></p>

		<ul style="list-style-type: none"> • Fruits are excellent sources of antioxidants and phytochemicals. • Regular consumption of fruits and vegetables offer significant protection against many degenerative diseases including heart diseases, cataracts and strokes. • Fructose in fruits helps to control appetite when eaten before meals - useful in weight control. (Remember to wait a minimum of 1 hour before eating your meal.) Fruits are rich in fiber and pectin. These lower cholesterol levels and assist in bowel movement. <p>Examples</p> <p>Avocado:- High in polyunsaturated fats (20% content of fat).</p> <p>Banana- Rich in potassium for proper heart functioning and very low in sodium.</p> <p>Grapefruit:- Low in energy, rich source of vitamin C, flavonoids, and potassium.?</p> <p>Oranges, Lemon, and Lime (citrus) are rich in vitamin C, good source of folic acid, B₆, potassium, etc. Lemon is used in treating gallstones and lime has antibiotic effects.</p> <p>Mangoes are rich in carotenes, vitamin C, B-complex vitamins, vitamin E and potassium and soluble fiber, iron. Citrus fruits fight viral infection</p> <p>Pawpaw aids digestion and it also is rich in antioxidants (flavonoids), carotene, folic acid and vitamin E.</p>
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Session 4

HOW TO COMBINE YOUR FOODS AND PLAN YOUR MEALS

Terminal Competence

1. Plan meals based on healthy combinations and adequate amounts of food groups in the local environment.
2. Recognize the need to avoid using cookware that has the potential over a long period of poisoning foods.

Specific Objectives

1. Know the importance of appropriate food combinations.
2. Appreciate the nutritional value of common Ghanaian foods.
3. Be able to combine foods to obtain adequate nutrients in a meal.
4. Enrich carbohydrate based meals.
5. Choose safe cookware and utensils.
6. Select appropriate storage material for food and storing foods hygienically.
7. Identify appropriate methods used in preparing meals.
8. Maintaining proper sanitation within the cooking environment.

Material resources required

Sample food items, utensils, charcoal, fire wood and portable water

Advance Preparation

Review manual and video/film, plan a visit to the market, assemble cooking utensils and materials

Duration 7 hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Selecting foods from the local market	Show video clip on shopping for foods Lecturette Discuss items to be purchased in the market Practical demonstration on selection of food items in the market Field trip to a market	45mins	Introduction To get the most nutrition and energy from foods, items must be combined in a proper manner in terms of quantity, proportion and type.
Food	Lecture	30mins	We enrich our foods when the nutrients in

<p>fortification and enrichment</p>	<p>Illustration/Samples Plenary discussion</p>	<p>the diet do not cover the nutritional needs of the body. Poor nutrition results when a person does not get enough to eat, due to any of the following immediate causes:</p> <ul style="list-style-type: none"> • Lack of food or a lack of a particular nutrient; • Low concentration of energy and nutrients; • Too few or inconsistent meals; • Incorrect breastfeeding practices; • Traditional beliefs and practices that have negative impacts on health and • Diseases which may prevent proper absorption and/or utilization of nutrients or cause a person to absorb less nutrients. <p>Poor diet and frequent diseases can result from the following underlying causes:</p> <ul style="list-style-type: none"> • Food shortages within the family due to inability to produce or to purchase.. • Overburdening of key family caretakers and economic providers, especially women. If mothers are overburdened, they become less able to care for the children properly • Unhealthy environment and inadequate health services. <p>The basic cause of undernourishment is lack and unequal distribution of resources at family, community and national levels.</p> <p>We can overcome some of these problems by:</p> <ol style="list-style-type: none"> a. Enriching meals for vulnerable groups such as children and pregnant women. b. Educating communities about the importance of food and food needs of various groups in the family.
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		<p>Meals can be fortified by:</p> <ul style="list-style-type: none"> c. Adding food sources that are nutrient-rich to the staple diet. d. Offering a variety of foods at mealtime, for all members of the family to have access to enough energy and nutrients. Families can increase food variety by developing a garden either in their backyards or on some family land for growing fruits, vegetables, legumes, tubers and grains. e. Gathering wild foods with high nutrients, e.g. pawpaw, green leafy vegetables, tubers, palm nuts, herbs, etc. f. Taking advantage of seasonal foods and preserving them for year-round use. Methods: <ul style="list-style-type: none"> 1. Drying: <p>Dried foods can be grown organically, without using harmful chemicals. (refer pg.of the source manual).</p> 2. Removal of Moisture: The principle of removal of moisture is employed in the preparation of stew-like substances, e.g., "Shito," is highly popularly among boarding-school children. 3. Freezing 4. Canning 5. Salting 6. Preservation in vinegar g. The addition of soy and other highly nutritious legumes, such as the cow pea, winged bean, grains and other food items, such as sea vegetables to local foods to boost nutritional values.
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			<p>h. Sprouting (refer pg. of the source manual).</p> <p>i. Proper storage to protect food from pests, chemical and organic contamination</p>
Food combination and meal planning	Lecturette Plenary Discussion Demonstration and return demonstration	30mins 60mins	<ul style="list-style-type: none"> • Food is made up of nutrients which may be either micronutrients or macronutrients. <u>Micronutrients</u>, such as vitamins and minerals, are needed in small amounts. <u>Macronutrients</u>, such as carbohydrates and protein on the other hand are needed in larger concentrated amounts. <p>Fat is a macronutrient and concentrated in energy and should be eaten in very small quantities.</p> <ul style="list-style-type: none"> • The body cannot work properly if one or more of the nutrients are regularly missing. • A healthy, nutritionally adequate diet combines the right foods in the right amounts and is safe and free from disease-causing microorganisms and other harmful substances. It is necessary for all people to know how to put together nutritionally adequate diets. <p>No single food contains all the nutrients our bodies need. A proper mix of locally-produced foods in season can be nutritionally adequate, healthy, enjoyable, affordable and can supply the nutrients that our bodies need.</p> <p>See Appendix #1 for the functions of various nutrients in the body and their plant food sources.</p> <p>Recommended Dietary Intake (refer to pg... of the source manual)</p> <p>Ghanaian diets are based largely on carbohydrates. To improve the quality of</p>

		<p>the Ghanaian diet it is important to:</p> <ul style="list-style-type: none"> • Increase as much as is possible the amount of plant-based protein foods, i.e., legumes such as cowpeas, soybean, groundnuts, agushie, were-were, etc. in every meal. • Reduce intake of animal proteins. • Increase the quantity of fruits and vegetables in the diet, to supply minerals and vitamins. Fruits and vegetables also contain fiber, which helps with the elimination of waste from the body, thereby contributing to the maintenance of good health and prevention of degenerative diseases. • Fats and oils should be eaten in moderation. The oil in stews and soups should not be visible. <p>Table 3 (refer to pg..... of source manual) is a guide for serving portions of foods in meals taken two or three times a day. This will meet the normal adult's daily nutrient and energy needs.</p> <p>When prescribed by a qualified doctor, iron supplements in tablet or liquid form may get rid of iron deficiency. Children should be given recommended vitamin A supplements and families should try to use iodized salt.</p> <p>Please Note</p> <ul style="list-style-type: none"> ○ A slice as referred in the table is the size equivalent to sardine can (tin). ○ A serving is equivalent to the quantity an individual is able to eat to feel satisfied. ○ If only fruit is eaten for breakfast, the quantity can be increased to satisfy the consumer. <p>The proper combination of foods</p>
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		<p>eliminates many disorders that stem from consumption of meals that are not nutritionally balanced.</p> <ol style="list-style-type: none"> 1. Legumes are good sources of protein but are lacking in certain essential amino acids. 2. Whole-grain cereals contain small amounts of protein but lack some essential amino acids. 3. Starchy roots do not contain much protein. 4. When cereals and legumes are combined in a meal, cereal protein provides essential amino acids that are lacking in the legume whilst legumes provide essential amino acids lacking in cereals. The resulting meal provides complete proteins. This process is called protein complementarity. 5. When starchy roots form the basis of a meal, efforts should be made to include legumes and cereals in other meals for the day. 6. Eat five servings of fresh fruits and vegetables daily. Do not eat fruits and vegetables in the same meal. <p>Some examples of complete meal combinations</p> <ol style="list-style-type: none"> 1. Beans stew and boiled rice with vegetable salad 2. Waakye with pepper sauce, vegetable stew or salad 3. Carbohydrate base (e.g., fufu, konkonte, boiled yam, TZ, kenkey, banku, etc.) with any of the following soups: <ul style="list-style-type: none"> • Groundnut soup (with no visible oil) with sliced vegetables (garden eggs, okro, cabbage, Bra, carrot sticks etc.) • Okro /Ayoyo/Ademe (stew or soup)
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		<ol style="list-style-type: none"> 4. Soya kebab, pepper sauce, vegetable salad and Ga or Fanti kenkey 5. Agushie stew, rice and vegetables salad 6. Palava sauce (green leafy vegetable) with agushie, rice, banku or ampesi.. 7. Whole wheat gluten and soy/tofu chunks in gravy with cooked vegetables and vegetable salad, rice, banku or kenkey. 8. Vegetable soup (with sliced vegetables, cowpea or broad beans, etc.) with boiled rice, banku, kenkey or TZ and vegetable salad and cornbread. 9. Cereal porridge with groundnut paste, whole-wheat bread, steamed or fresh vegetables (cabbage, lettuce cucumber tomatoes spicy onions, sweet pepper). 10. Cereal porridge with Kose, vegetable salad. 11. Rice and beans, jollof with vegetables (steamed or fresh) and vegetable salad, 12. Soya beans, rice jollof with vegetables (steamed or fresh) and vegetable salad. 13. Apapransa with beans and vegetable salad. 14. Palava sauce and soy/tofu chunks with rice or banku and vegetable salad. <p>For vulnerable groups such as growing children, pregnant &, lactating women, sick and convalescents, it is essential that they are given COMPLETE MEALS all the time.</p> <p>General Guide to Meal Planning and Good Eating</p> <ul style="list-style-type: none"> • Eat a variety of vegetables and fruits in season, Serve each at least 3x daily in separate meals. • Use only moderate quantities of animal foods in your meals. If you can, cut it off completely or progressively & eventually reduce
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			<p>this to zero.</p> <ul style="list-style-type: none"> • Use small quantities of fats and oils, especially animal fats. There should be no visible oil in stews and soups. • Eat moderate quantities of carbohydrates, if your work does not involve a lot of physical output. • Cut down on sugar and salt. • Generally do not overeat • Do not eat late at night. If you do, wait for about 2 hours before you go to bed. • Make foods safe by washing your hands with soap after visiting the toilet and before cooking. Wash raw foods thoroughly-fruits and vegetables in salty water, and cover foods from dust and flies. • Drink about 8 glasses (i.e., 8 sachets) of water daily.
Methods of food preparation	Group work and plenary discussion Demonstration	45mins	<p>Steaming Most vegetables and grains are best consumed when steamed, because this allows the food to retain moisture, flavour and nutrients.</p> <p>Boiling Boiling is the most commonly used method for cooking beans, grains and some vegetables (stews and soups).</p> <p>Baking Baking involves the use of dry heat in an enclosure. This retains nutrients in foods much more than boiling does. Baked foods tend to have lower calories, as compared to fried foods. Avoid over-baking vegetables, because this can destroy nutrients.</p> <p>Roasting/Grilling Roasting/grilling is similar to baking but this is done on an open fire</p> <p>Sauté</p>

			<p>Sautéing vegetables is adding a very small amount of oil to the pan and then gently browning the food. This technique is used to cook vegetables that lose a lot of moisture during cooking – e.g., mushrooms, onions and celery</p> <p>Recommended cookware</p> <ul style="list-style-type: none"> • For vegetables, use traditional clay pots or stainless steel and enameled pots with a medium or heavy-gauge (thick or heavy) bottom, to prevent food from burning. • Enameled cast-iron cookware produces even distribution of heat. They are durable and easy to maintain. <p>Modern pottery is often glazed with compounds which contain lead or cadmium and should be avoided, because these substances are poisonous.</p>
<p>Making food hygienic</p>	<p>Lecturette Practical demonstration on hygienic preparation of a meal Demonstration and return demonstration on meal preparation</p>	<p>45mins</p>	<p>Dos</p> <p>Wash hands with soap and dry them up with clean towel.:</p> <ul style="list-style-type: none"> • Immediately on returning home from outside • Before starting to cook • After each visit to the toilet and after "blowing the nose" <p>Wear clean clothes when cooking. Keep the kitchen clean and tidy. Use clean pots & pans for measuring and/or cooking.</p> <p>Cook food in amounts that satisfy the family and avoid having surpluses.</p> <p>Wash leaves/vegetables thoroughly before adding them to meals.</p>

			<p>Clean and wash rice, beans, etc., before cooking</p> <p>Keep a bucket of water/sand for fire safety</p> <p>DON'Ts</p> <ul style="list-style-type: none"> • Allow sick people to cook. • Allow young children into the cooking area. Those who are learning to prepare meals MUST have adult supervision. • Cook in a closed space with no chimney or vents to take off smoke & let in clean air • Cook with an uncovered head. • Leave food/ingredients unpacked/closed in the kitchen • Allow animals/chickens into the kitchen
Food Preservation	<p>Questions and answer</p> <p>Lecturette</p> <p>Practical demonstration on hygienic preparation of a meal</p> <p>Demonstration and return demonstration on meal preparation</p>	45mins	<p>Dos</p> <ul style="list-style-type: none"> • Handle food with care • Keep food items in a clean, dry and well-ventilated store room • Ensure that food commodities are kept on pallets. • Leave space between food stocks and the walls • Ensure that the storage space is not accessible to rodents. • Keep pests out by sealing bags and/or transferring left-over foods into tightly-sealed jars/containers. • Keep animals away from the kitchen area.. • Consume foods before their expiry dates <p>DON'Ts</p> <ul style="list-style-type: none"> • Store perishable foods unless proper storage facilities are available. • Leave food commodities in open containers.

			<ul style="list-style-type: none"> • Leave food commodities in the rain or sun. • Use hooks or drop the bags to avoid damaging them and causing food leakages. • Litter the storeroom and its surroundings • Place food items with non-food items (shovels, buckets, etc) in the same room. • Allow sick people to enter the storage area. • Make fires in and around the store room
Keeping the kitchen clean	<p>Questions and Answers Video/film show Lecturette</p>	45mins	<p>Washing Dishes How do we make dishwasher?</p> <ul style="list-style-type: none"> • Hot • Soapy with bleach • Scalding hot rinse water <p><u>Which dishes do we wash first?</u></p> <ul style="list-style-type: none"> • Glassware • Tableware (spoons, forks, etc). • Dishes • Pots and pans (to be cleansed and scoured after each use • Dishcloths, towels and potholders should be cleaned at all times • Avoid scrapping when washing dishes <p>Cleaning the stove and oven <u>How often?</u></p> <ul style="list-style-type: none"> • After every meal • General cleaning every week • Spilled substances should be cleaned immediately (not allowed to crust or dry) <p><u>How to clean the oven and cooker?</u></p> <ul style="list-style-type: none"> • Remove all removable parts from the top and wash with very hot soapy water • Wash off the entire exterior of the stove • Once a week, undertake general

			<p>cleaning of kitchen (use toothbrush to clean areas that are hard to reach)</p> <ul style="list-style-type: none"> • Clean interior immediately after cooling off • Salt can be sprinkled into oven, to prevent smoking when substances spill over within them. <p>Cabinet</p> <ul style="list-style-type: none"> • Keep in order at all the times • Clean once a week to replace shelf paper or to wash and refresh older paper • immediately wipe off substances that spill over. • Clean consistently after each meal of the day and every day to insure constant order <p>Kitchen table</p> <ul style="list-style-type: none"> • Keep in good order at all the times; • To be as neat as is possible while working • Work to be confined in a certain area and not scattered • Clear and clean immediately after meals and before washing • Use a tablecloth and add flowers, fruits, plant or other decorations <p>Floor</p> <ul style="list-style-type: none"> • Clean at all times, especially before entering for any task • Clean before and after each meal • Do general cleaning once a week. Move out everything and scrub all areas • Sprinkle anti-cockroach powder behind cabinets and under refrigerators, stoves, etc. • Sweep regularly <p>Walls</p> <ul style="list-style-type: none"> • In a home with small children, general cleaning once a week, or
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		<ul style="list-style-type: none"> • Once a month if there are no small children <p>Appliances</p> <ul style="list-style-type: none"> • Refrigerator to be defrosted and cleaned once a week • Exteriors to be cleaned daily. Spill over when washing dishes, to be cleaned immediately • Blenders, mixers etc., cleaned and stored. <p>Garbage Can</p> <ul style="list-style-type: none"> • Those kept inside the house: thoroughly clean after the last meal each day and empty each night before retiring • Lined with paper or plastic bags to have a more sanitary and neat can & to avoid parasites and unsanitary conditions • Should be kept outdoors, if at all possible. <p>Making the kitchen attractive</p> <ul style="list-style-type: none"> • Cultural art objects to be hung on walls to add brightness and attractiveness to the kitchen • Hang colour-coordinated curtains that should routinely be washed and ironed • Anything else to add cheerfulness and attractiveness to this work environment
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Session 5

FEEDING THE FAMILY

Terminal Competence

1. Prepare tasty and nutritious meals for the whole family, using recommended portions and right combinations of foodstuffs.
2. Ensure food security for the family

Specific Objectives

1. Assemble the required foodstuffs.
2. Get the right utensils

Material resources required

Raw food items, cookware, utensils, plastic plates, cutlery, cake of soap and water

Advance Preparation

Review of manual, preparation of slides

Duration 3 hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction	Lecturette	10mins	General Guide <ul style="list-style-type: none">• Limit salt and sugar• Have lots of fruits and vegetables in meals• A largely plant-based diet with moderate, little or no animal protein.• Protein from a legume source at least thrice a week• Moderate to low fat content in the meal• Avoid excessive eating.
Diet for the normal adult	Food display Group and plenary discussion Summary	30mins	Breakfast Fruit in season-- 5 to 7 servings (e.g. about 4 oranges, 8 medium size bananas, medium size pawpaw or mangoes Or

			<p>Cereal porridge (e.g. koko, rice water, kenkey water, oats, weanimix); bread; kose; groundnuts roasted or the paste as a spread on bread</p> <p>Or</p> <p>Ampesi or rice or banku served with (generous amounts of soups/stews and legumes such as boiled cowpea, bean stew, vegetable soup with soya chunks, groundnut soup, palm nut soup, etc.)</p> <p>Lunch/Supper</p> <p>Fufu, rice, waakye, ampesi, kenkey, banku, TZ, etc., served with (generous amounts of soups / stews and legumes such as boiled cowpeas, bean stew, soya chunks, and vegetable salad)</p> <p>Note</p> <ul style="list-style-type: none"> • Whenever heavy lunch is eaten, it is important to ensure that supper is light. (Examples of light supper are: - fruits, soups or soymilk with whole wheat bread/vegetable sandwich, vegetable salad, etc.) • Ideally, supper should not be too heavy and should be taken early, i.e. before 6pm. • Whenever supper is eaten late, one should wait for about 2 hours before going to bed. This helps with digestion and weight control.
Diet for a Pregnant woman	Food display Group and plenary discussion Summary	30mins	<p>Recommended Diet for Pregnant women</p> <p>Inadequate diet during pregnancy leads to deficiencies that adversely affect both mother and baby, in terms of:</p> <ul style="list-style-type: none"> • Their potential for physical and mental well-being and • The potential for intellectual development in the child <p>6:00 am Water 8 oz. (250 – 300mls) 7:00am Brisk Walk</p>

			<p>8:00 am Citrus juice 7 oz. (200 – 250mls) or eat 2 oranges, 1 grapefruit, small pineapple. Take supplements of iron, folic acid, and calcium tablets</p> <p>9:00 am (or 1 hour after completing citrus)</p> <p>Breakfast - alternating between fruit or cereal breakfast – e.g., koko, rice water, oats, weanimix, bread/kose</p> <p>10:30 am: Water - at least 8 oz.</p> <p>11:30 am: Soymilk or natural energizing drink (soy, rice, or millet) or fruit juice</p> <p>12:30 am: Lunch - 'Akara' (black eyed pea fritter), brown rice, brown rice and beans, waakye vegetable salad. Take vitamin supplement</p> <p>1:30 – 2:00pm: 8oz water</p> <p>2:00 – 4:00pm: Rest (mandatory)</p> <p>4:00 pm: Sobolo tea</p> <p>5:00 pm: 8oz water</p> <p>6:00 pm: Dinner (early). Greens (Nkontonmire or any other greens available, yam, beet root, kenkey. wokple (corn bread patties) parsley, ampesi, banku, or TZ and sprouts if available or generous amounts of vegetable or legume stew such as bean stew (if it does not produce gas in the consumer), vegetable/tofu stew, agushie, groundnut soup, maasu awiesu, slices of whole wheat bread and peanut butter</p> <p>7:30 pm: Water and molasses (2tbsp or 4 tsp of water)</p> <p>8:30 pm: Bedtime</p>
Diet during Lactation	Food display Group and plenary discussion Summary	30mins	<p>The diet of the normal adult is recommended for the lactating woman. The only difference is that the lactating woman should enrich her meals with more</p> <ul style="list-style-type: none"> . Nuts . Pulses i.e. groundnuts, agushie, neri, soya . Vegetables

			<p>Note</p> <ul style="list-style-type: none"> • Light exercise such as walking in the morning and adequate rest during the day is very important for the pregnant woman and lactating mother. • Drinking enough water, about 10 glasses daily, especially in the hot season is recommended.
Diet for the infant and young	Food display Group and plenary discussion Summary	60mins	<p>Infant Up to 6 months when babies double in size – Exclusively on breast feeding, no water, milk, juice or any supplements.</p> <p>Breast milk is ideal feed for infants. Has adequate quantity and quality of nutrients for baby's growth and development, antibodies for protection against diseases, etc. Suckling helps in development of strong and well formed jaws.</p> <p>6 – 9 mths Complementary feeding, with breast feeding on demand. Give 3 times adequate serving of a variety of foods</p> <ul style="list-style-type: none"> • Children need foods that are nutrient-dense, because their stomachs are small. • Their foods should be enriched by adding foods such as agushie, beans, groundnuts, vegetable oil, green leafy vegetables, cooked tomatoes, carrots etc. • Children should be given fruits everyday, mashed or squeezed as juice. • New foods should be introduced slowly with patience, one at a time. • Water should not be given just before breastfeeding or during feeding times. • Children should be served in clean and separate bowls and supervised

		<p>when eating.</p> <ul style="list-style-type: none"> • Before eating, the hands of both adult & child should be washed with soap and water. • Pepper and other hot spices should be avoided. • Water to be drank by infants must first be boiled and cooled to room temperature, before giving it to them (where there is no potable source of drinking water) <p>Morning Fresh fruit juice Cereal porridge from maize or millet Examples</p> <ul style="list-style-type: none"> • Whole grain koko enriched with either soya or ground nut paste • Weanimix (4 parts of cereal + 1 part of legume) <p>Or</p> <p>Mashed/pureed fruit (enough to satisfy infant) Example</p> <ul style="list-style-type: none"> • Banana • Mango • pawpaw <p>Mid-morning Breast feed on demand Cereal porridge or impotompoto 4 tsp of juice (increase quantity as child grows)</p> <p>Evening and night Breast feed on demand Soft mushy food, e.g., boiled and mashed rice, yam, kenkey with vegetable stew or soup, no pepper or hot seasoning</p> <p>9 – 12 mths Breast feeding on demand Introduce other foods</p>
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		<p>Snacks and fruits (daily) No pepper</p> <p>Morning Alternate breakfast menus for 6 – 9 mths Increase servings based on the appetite of the child.</p> <p>Mid-morning Breastfeed on demand Alternate fruits and enriched cereal porridge</p> <p>Afternoon Soft mushy food; e.g., boiled and mashed rice, yam or kenkey served with stew or soup</p> <p>Late Afternoon Breastfeed</p> <p>Evening and night Enriched cereal Breastfeed on demand</p> <p>12 – 23 mths Schedule is same as 9 – 12 mths</p> <ol style="list-style-type: none"> 1) If baby is no longer nursing, he should drink at least 3 glasses of soya milk daily. 2) The amount of food given should be increased and varied. 3) Increase the legume/nut content, e.g. beans of all types, soybeans, groundnut, agushie, neri, etc. (e.g. 2 to 3 Tsp of cooked and pureed beans). 4) Vegetables such as dark green leafy vegetables, including kwahu nsusua and moringa, carrots, cabbage, cauliflower, squash, garden eggs, onions, tomatoes, etc., should also be given. <p>Small amounts of palm-nut/oil should be used to provide energy and vitamin A. Shea butter to be used in small amounts to provide energy.</p>
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			<p>Evening Snack Fruit, fruit salad or glass of soya milk and slice of whole grain bread or enriched cereal porridge</p> <p>24 – 59 mths Feed at least 3 x per day (variety of family foods) Snacks 2 x daily in between meals Feeding children during illness and recovery</p> <ul style="list-style-type: none"> • Giving small amounts of soft food more frequently • Encouraging the child to eat as much as possible • Giving extra fluids <p>Take advantage of a child's increased appetite during recovery and provide extra food, until lost weight is regained</p>
Diet for the elderly	Food display Group and plenary discussion Summary	20mins	<p>In feeding the elderly, there are five (5) main issues to consider:</p> <ul style="list-style-type: none"> • Due to digestive system being sensitive, meals should be small. Avoid over eating and sugar. • Meals to have sufficient nutrients, fiber foods, anti-oxidants, water soluble types like oats and legumes to be at least 1/3 of daily food intake. • Eat what promotes easy and proper natural digestion; well balanced meals, proper combinations and methods of preparation. Include foods with low-fat, e.g., cold-pressed oils (omega 3 and 6 fatty acids). • Meals should to be simple, tasty and nutritious. Use natural sweeteners (e.g., grains and dried fruit). Grains can be sprouted, dried and ground for use in making naturally sweet porridge. Remember some may have lost teeth so foods should be tender, mashed and softened when needed. <p>Consistency and diligence in all of the</p>

			above points. Optimum nutrition is achieved by doing same things at the same time daily- including sleeping resting, recreation, physical exercise, prayer and meditation.
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MODULE TWO: HEALTHY LIFESTYLE

Session 1

OVERVIEW: CONCEPT OF HEALTHY LIFESTYLE

Terminal Competence

Appreciate and maintain a healthy lifestyle

Specific Objectives

1. Describe the concept of healthy lifestyle
2. Explain the principles governing healthy lifestyles
3. Outline the elements of a healthy lifestyle

Material resources required

Audio visual, posters, brochure

Advance Preparation

Review manual & audiovisuals,

Duration

1hr 30mins

Session Pan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction	Q & A		<ol style="list-style-type: none">1. Why are you taking this training?2. What will you do with this shared information?3. What aspects of this training will you adopt for you and your family?
The concept of Healthy Lifestyle	Lecturette Brainstorming Role play	15mins	Healthy Lifestyle is about the promotion of well-being. Dimona Health Model Modified Dimona Health Model Achievement by inspiring lifestyle change

			<p>What are some of the things we do that lead to healthy living? What is the state of health now, as individuals and as a people?</p> <p>SPARKLE (acronym) S – Sleep well P – Plan every day A – Anticipate less R – Relax K – Keep your temper under control L – Laugh more E – Exercise regularly</p>
The Concept of Preventive Health	Lecture	15mins	<p>Present preventive health glossary and definitions (refer to Page.... of resource manual)</p> <ul style="list-style-type: none"> • Spirituality • Perfect health • Holy concern • Regenerative • Natural fabrics • Unnatural (synthetic) fabrics • Holistic • Internal cleansing • Discipline • Positive touch therapy • Reflexology • Positive music/sound • Hip-hop culture • Colon irrigation • Healthy lifestyle • Truth
Scope of Healthy Lifestyle	Q&A Video show/Lecture? Plenary discussion	20mins	<p>1. It is the working ensemble of interrelated/interdependent elements of: physical health—the body’s ability to function as designed, i.e., the body’s functions/systems</p> <ol style="list-style-type: none"> a. Diet b. Exercise/holy concern c. Personal hygiene—internal & external cleansing —products, methods d. Skin and hair care

		<ul style="list-style-type: none"> e. Proper rest & relaxation (touch therapy) f. Weight management g. Proper posture <ul style="list-style-type: none"> • Sitting • Standing • Lying • At work • In cars <p>2. Mental/spiritual health</p> <ul style="list-style-type: none"> a. Concept of preventive health b. State of mind <ul style="list-style-type: none"> —Self-esteem —Positive self-image Brain food Brain activity Study/intellectual activity Social health Relationships/social setting, family, interpersonal relationships <p>3. People-to-people ecology</p> <p>4. Cultural health <ul style="list-style-type: none"> Effects of forms of cultural expressions </p> <p>5. Clothing/fabrics <ul style="list-style-type: none"> Underclothing Shoes </p> <p>6. Music/sounds (vibrations)</p> <p>7. Dance, entertainment/inner-attainment, artistic expressions (literary, poetic, songs, etc.) Hip-pop, historical background and its effects on health</p> <p>8. Cuisine</p> <p>The role and effects of these choices, relative to:</p> <ul style="list-style-type: none"> Socio-cultural health Value system Environmental health Measures for preventing disease (e.g., malaria, typhoid, etc) <ul style="list-style-type: none"> (1) Cleanliness of home and surrounding areas (2) Getting rid of stagnant water
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			<p>(3) Clean water sources (4) Proper disposal of human and animal waste (5) Proper disposal of rubbish and other disease-causing vectors (6) Screens on doors and windows (7) Proper distance of animals to human living quarters</p> <p>Economic health - Creating wealth through health Your health is truly your greatest wealth - a healthy individual can create capital Healthy nation</p>
Elements of a healthy lifestyle	<p>Lecturette Review, Question & answer; how to implement ideas. Assignment given.</p> <p>Demonstration</p>	<p>10mins</p> <p>30mins</p>	<p>a) Exercise -- physical, mental/spiritual, social (self-esteem). Exercise on alternate days – 30mins b) Weight management c) Personal hygiene/internal cleansing d) Touch/massage therapy e) Skin care f) People to people ecology g) Language of healthy lifestyles - words, terms are important -> health begins with you, not relative to doctor or clinic h) Stress – causes, effects and managing it i) Environment j) Cultural—shoes, hair, clothes, sounds</p> <p>Activity</p> <ul style="list-style-type: none"> • 15-minute stretching warm-up session (class participation) • People-to-People Ecology (class participation)
Effects of Posture on body and health			<p>Posture Technically: the alignment of the body with maximum physiological and biomechanical efficiency to minimize stress and strains.</p>

		<p>Literally: aligning the body with respect to the force of gravity and other environmental forces. This is done with respect to the postural reference line which runs through the sagittal plane of the body (pictorial demonstration needed).</p> <p><u>Recommended postures</u></p> <p><u>Sleeping</u></p> <p>Lying on the side (lateral) with the knee flexed 25 - 30° with pillow supporting the head and neck and not the shoulders. Put a small pillow between the knees to avoid undue strain on the back.</p> <p>Recovery position or ¾ prone position with the head tilted up a bit, supported by a pillow and one arm a bit ahead of the head with leg on same side flexed at 25 - 30° angle</p> <p><u>While driving</u></p> <p><u>Good Working / Sitting Positions</u></p> <ul style="list-style-type: none"> • Spinal System-S reduces the pressure in the lumbar spine. • Perfect posture is the position of the seated spine when the pressure on the inter-vertebral discs is least. • It needs correct support, and this is precisely what Spinal System-S provides. <p><u>Improper sitting positions</u></p> <p>Sitting in ‘C’ shape position</p> <ul style="list-style-type: none"> • When sitting with bad posture the spine adopts a forward “C” Shape. • C = Bad Posture • Sitting in the “C” position puts tremendous pressure on the spine, especially the lower
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		<p>back..</p> <p>Consequences of improper sitting positions</p> <p><u>General Back Pain Syndrome</u></p> <ul style="list-style-type: none"> • Discomfort • Diminishes elasticity in the soft tissues (muscles ligaments and tendons in the back). • Stress builds up and causes back discomfort and/or leg discomfort. <p><u>Standing Position with/without high heel shoes</u></p> <p>The knee The altered posture of walking in high heels places excess force on the inside of the knee - a common site of osteoarthritis in women. One study found that knee-joint pressure increased by as much as 26% when a woman wears heels.</p> <p>High Heels High heels push the center of mass in the body forward and force the hips and spine out of alignment.</p> <p>Pressure High heels may make legs look longer, but as the heel-height goes up, so does the pressure on the forefoot.</p> <p>Pressure increases on forefoot when wearing:</p> <p>3-inch heels-----+76% 2-inch heels-----+57% 1-inch heels-----+22%</p> <p>The calf Calf muscles contract and adjust to the angle of the high heels. Muscles may shorten and tighten.</p> <p>Morton's neuroma</p>
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		<p>Heel height and a narrow toe box can create a thickening of tissue around a nerve between the third and fourth toes, which can lead to pain and numbness in the toes.</p> <p>Achilles tendon When the front of the foot moves down in relation to the heel, the Achilles tendon tightens up. The higher the heel, the shorter the tendon becomes, creating heel pain.</p> <p>Bunions Tight-fitting shoes can cause a bony growth on the joint at the base of the big toe, which forces the big toe to angle in toward the other toes, resulting in pain.</p> <p>Hammertoes A narrow toe box pushes the smaller toes into a bent position at the middle joint. Eventually, the muscles in the second, third and fourth toes become unable to straighten, even when there is no confining shoe.</p> <p>Pump bump The rigid backs of straps of high heels can irritate the heel, creating a bony enlargement also known as Haglund's deformity.</p> <p>Ankle injuries High heels impair balance; a wearer is at a greater risk of falling, which could lead to a sprained or broken ankle.</p> <p>Metatarsalgia High heels force the body's weight to be redistributed. Prolonged wear can lead to joint pain in the ball of the foot.</p> <p>See pg. of source manual</p>
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Session 2

HOW TO MAINTAIN HEALTH THROUGH GOOD RELATIONSHIPS

Terminal Competence

1. Maintain a healthy relationship with each other and with the environment
2. Exercise positive thinking as a way of promoting health
3. Be more optimistic toward life
4. Be more analytical towards daily problems

Specific Objectives

1. Demonstrate ways of maintaining a conducive environment
2. Describe the approaches to positive thinking
3. Need to be frank in stating personal weakness and strengths
4. Explain how one could be helpful to neighbours

Material resources required

Case studies, video/film on environmental pollution, projector

Advance Preparation

Review case studies, assemble video recorder and films

Duration

2hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Maintaining good relationships and health	Brainstorm Role play and drama	30mins	People-to-people ecology Define people-to-people ecology People's health and lives are intricately related to how they relate and treat one another Impact on well-being and quality of life We are our brother's keeper Treat your neighbor as yourself What is the difference between current relationships and traditional

			<p>relationships? What are the effects of the current nucleated form of relationships?</p> <p>How do we solve problems arising from the current nucleated forms of relationships?.</p> <p>Working together to bring positive attitudes towards life and one another:</p> <ul style="list-style-type: none"> • Embracing each other • Concern for each other's well-being • Recognition • Respect • Sharing • Smiling and laughter • Injecting humour in communication within the family and with other persons • Making positive comments about each other
Positive thinking and health	Lecture Case study Demonstration and return demonstration	30mins	<p>Spirituality (ability to hear, discern, doing the right thing)</p> <p>Perfect health (mind set on issues)</p> <p>Holy concern</p> <p>Laughter is great medicine</p> <p>Proverbs 14:30 – A sound heart is the life of the flesh</p> <p>Negative thoughts can defile your body and spirit</p>
Our health, our environment	Q&A Video show on environmental pollution Lecturette	30mins	<p>If we are concerned about our health, what are some of the things we must do to our environment?</p> <p>Our health is dependent on whatever God has created for us & how we manage or mismanage it..</p> <p>We need to manage our environment to keep us healthy all the time.</p>
Maintaining a healthy environment	Group and plenary discussions	30mins	<p>Group assignment: How might we maintain good and clean physical environments? And Why (rationale)?</p>

			<p>Summary</p> <ul style="list-style-type: none">• Maintain clean air by avoiding pollution through vehicle fumes, use of refrigerators that use CFCs, coughing into air without covering the mouth, preferably with a handkerchief• Maintaining clean water by ensuring good sanitation (away from refuse and human excreta), use of herbicides, insecticides, artificial fertilizers)• Maintain our forest cover by avoiding indiscriminate tree felling/cutting and replacing trees that have been cut• Prevent excessive noise making• Ensuring that we have clean air and maintaining the oxygen cycle to sustain earthly life
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Session 3

HOW TO MAINTAIN A HEALTHY WEIGHT

Terminal Competence

1. Keep body weight within healthy limits
2. Cultivate the habit of daily physical exercises to maintain good health

Specific Objectives

1. Explain the effects of weight on health
2. Outline the dangers of overweight and underweight
3. Measure and record height and weight and waist circumference of some of the participants in class
4. Calculate and interpret Body Mass Index (BMI) and other indices of obesity
5. List simple physical exercises that help to maintain good health

Material resources required

Audio visual, posters, brochure, weighing scales, BMI chart, height platform/measure (in meters) calculator, tape measure, drinking water

Advance Preparation

Review manual and audiovisuals, assemble and test weighing and height measurement tools and BMI charts, Inform participants to come with exercise costumes

Duration

3hr

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Effects of body weight on health	Q&A Video/film on overweight and underweight Lecture	30mins	What are the effects of weight on health? To maintain good health there must be a balance between body weight and height. The problems associated with overweight and underweight are: Overweight <ul style="list-style-type: none">• Obesity• Diabetes

			<ul style="list-style-type: none"> • Hypertension • Heart disease • Stroke • Heart failure • Menstrual disorders <p>Underweight</p> <ul style="list-style-type: none"> • Reduced stamina • Mental depletion • Vitamin deficiencies and associated diseases • Frequent sicknesses, due to impaired immunity <p>Corrective Measures for overweight</p> <ul style="list-style-type: none"> • Eat well-balanced diet • Regular programme of physical exercise • Work to expend energy • Reduce alcohol intake <p>Corrective measures for under weight</p> <ul style="list-style-type: none"> • Eat well-balanced diets • Need to take adequate amounts of water • A regular programme of physical exercise <p>In both cases, seek medical advice, if there is no noticeable progress,</p>
Measurements for determining healthy weight	Demonstration and return demonstration Take weight and height for plenary discussion	20mins	Measure and record height and weight of some of the individuals in the class. Measurement should be in metric scale (i.e. centimeters and kilograms)
Indices of Obesity	Group work on BMI planning	20mins	Calculate BMI, using the formula (BMI = weight/height x height). Compare the results with national height and weight charts for BMI (refer to BMI chart on page of source manual) Overweight is the result of genetics

			<p>and learned eating habits. Learned eating habits that are unhealthy increase the risk of overweight. This a risk that can be prevented.</p> <p>Discuss the negative effects of fast foods (western diets) - such as constipation, piles, hypertension, obesity, heart disease, high cholesterol, cancer, etc.</p> <p>Other indices Measure and record waist and hip circumference of some individuals in the class (Measurement should be in metric scale)</p> <p>Compare waist circumference with national cut off standards:</p> <p>Not at risk</p> <ul style="list-style-type: none"> • Male: less than 94 cm • Female: less than 80 cm <p>Increased risk</p> <ul style="list-style-type: none"> • Male: greater than 94 cm • Female: greater than 80 cm <p>Substantially increased risk</p> <ul style="list-style-type: none"> • Male: at least 102 cm and above • Female: at least 88 cm and above <p>Waist to height ratio Cut off value for normal = 0.5</p>
Maintaining health and exercise	Q & A Lecture	20mins	<p>Define physical exercise and holy concern and their benefits: an essential and consistent cycle of regular and effective exercise</p> <p>What is the importance of physical exercise to the body?</p> <ul style="list-style-type: none"> • The purpose of exercise is; renewing/regenerating, • Strengthening and healing the

		<p>body, rejuvenating spiritual and mental well-being,</p> <ul style="list-style-type: none"> • Building and sustaining health and life. <p>Form of exercise should include</p> <ul style="list-style-type: none"> • Strengthening • Stretching • Deep breathing <p>How holy concern heals the body</p> <ul style="list-style-type: none"> • Increases oxygen in blood • Flushes out body wastes (toxins) • Increases blood circulation <p>How often should one exercise? At least 3 times a week for 30 mins (some individuals may have to work up to this rhythm). It is better to exercise each day and allow some time in between for the body to regenerate and heal itself. Individuals who have not exercised over long periods of time may choose to start slowly with 10mins of exercise, 3 times a day, with progression in duration, frequency and intensity.</p> <p><u>Stretching</u> Stretching is useful for injury prevention and injury treatment. Presentation concentrates on prevention If done properly, stretching increases flexibility of the body and directly translates into reduced risk of injury</p> <p>One should not try to make big gains in flexibility within a short period of time It should be done gradually and regularly over a long period of time and then maintained to prevent slipping back towards inflexibility.</p>
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			<p>The three methods of stretching are;</p> <ul style="list-style-type: none"> • Static • Ballistic • Proprioceptive neuromuscular facilitation (PNF) <p>Steps in stretching</p> <ul style="list-style-type: none"> • Start with warm-up exercise • Slowly move the joint towards its end range of motion, beginning from the neck to the feet • Hold in position for 15 - 20 secs • Gentle pulling sensation should be felt in the desired muscles • Do not stretch to the point of pain • Do not bounce back quickly since this may cause injury to the muscles • A set of 3 - 5 movements is sufficient • Alternate between agonist and antagonist muscles (e.g., quadriceps and hamstrings) <p>Benefits</p> <ul style="list-style-type: none"> • Enhances physical fitness • Improves ability to learn and perform skilled movements • Increases mental and physical relaxation • Enhances development of body awareness • Reduces risk of injury to joints, muscles and tendons • Reduces soreness & tension in muscles • Increases suppleness, due to stimulation & production of chemicals which lubricate connective tissues
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	<p>Demonstration and return demonstration</p>	<p>30mins</p>	<ul style="list-style-type: none"> • Reduces severity of painful menstruation in females <p>Before engaging the participants in exercise, it is best to explain to them what they might expect before, during and after working out.</p> <p>General Disclaimer:</p> <ul style="list-style-type: none"> • If you are pregnant or have any health ailment of concern (e.g., cardiovascular disease, hypertension, diabetes, etc.), please consider sitting out this exercise session or performing the least or only what you can do comfortably with ease. • It is advisable for everyone always to consult his/her physician, before undertaking any exercise programme. • Some of the stretching, strengthening and aerobic exercises may exercise previously unused muscles or groups of them. As a result, some slight pains may occur during exercises but particularly afterwards. Therefore, it is necessary to avoid too much zeal in doing them.. • Participants with special medical conditions should just observe what is being done. <p>Demonstrate the following exercises /holly concern:</p> <ul style="list-style-type: none"> • Strengthening • Stretching • Deep breathing • Aerobics • Walking • Fast walking • Jogging • Fufu pounding
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			<ul style="list-style-type: none">• Cultural dancing activities• Ampe• Washing a person's own clothing <p>Exercise safety: Draw attention to some of the wrong exercises people do.</p> <p>Stress on the principle of warm-up, main work-out and cool-down.</p> <p>List groups of people who cannot exercise. Advice to see physician before exercise.</p>
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Session 4

HOW TO MAINTAIN HEALTH THROUGH RELAXATION (RELIEVING STRESS)

Terminal Competence

1. Understand the need for proper rest and sleep
2. Apply appropriate relaxation methods to prevent/reduce stress and tension

Specific Objectives

1. Explain the benefits of rest and sleep
2. Explain the mechanism by which massage, touch therapy and deep breathing lead to relaxation and stress management
3. Demonstrate the techniques of massage/touch therapy and deep breathing as relaxation methods
4. Explain positive sounds in relations to health, spirituality and physical well-being
5. Explain the importance of dance and positive sounds on health, spirituality and physical well-being

Material resources required

Audio visual, posters, brochure, cds, cd player.

Advance preparation

Review manual and audiovisuals, collection of pictures, get permission to visit waste disposal sites

Duration

3hr

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
The benefits of rest and sleep	Q&A Lecturette	15mins	Sleep plays a most important role in restoring brain processes, e.g., focusing attention, performing subtle cognitive and social tasks. Since the brain is the power house of the entire body, its restoration enables the entire body to regenerate itself by enabling all its organs to function better and to sustain excellent health. Sufficient sleep lasts for about 6 - 8 hours a day.

<p>Methods of relaxation and stress management</p>	<p>Video show Demonstration and return demonstration</p>	<p>50mins</p>	<p>Massage Therapy is a holistic procedure that affects all systems of the body, including digestion, elimination of waste, respiratory, circulatory, lymphatic, endocrine and nervous systems.</p> <p>It is accomplished through specific manipulations with the hands on the soft tissue of the body for therapeutic effects.</p> <p>A major concern is to realize and deal with the effects of <u>stress</u>. Massage therapy makes us aware of how and where stress manifests itself 'in the form of tension in our bodies.</p> <p>Massage and Touch Therapies treat specific parts of the body with problems. They also create positive total effects on metabolism, through normalizing circulatory, muscular and nervous systems and their interdependent functioning.</p> <p>Massage Therapy is safe and effective when used for <u>stress management</u>. It is widely used as a preventive measure to help obtain relief from many specific problems, including the following:</p> <ul style="list-style-type: none"> • Migraines • Post injury rehabilitation • Whiplash • Respiratory problems • Arthritis • Low back pain • Blood circulatory problems • Leg aches • Neuritis/neuralgia
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		<ul style="list-style-type: none"> • Tendonitis/bursitis • Digestive/lower bowel problems • Neck & shoulder pain <p>Touch therapy can benefit people of all ages and conditions - babies, children, pregnant women, the elderly, and those under chronic care.</p> <p>Instruction, discussion, and demonstration of touch therapy</p> <p>What is touch therapy? Touch therapy is the use of various massage techniques to create a more balanced physical and mental state. It involves manipulating the skin, muscles, tissues and nerves through touch. Touch therapy transmits a sense of being cared for or being nurtured, as it helps us to become more aware of our bodies.</p> <p>Human touch connects one person to another and the feelings shared are healing-- both physically and emotionally.</p> <p>What are the benefits of touch therapy</p> <p>It relieves tension, increases blood flow, reduces stress, increases state of well-being, helps unlock trapped energy, enhances the immune system, removes waste, build's muscle tone.</p> <p>Preferred oils that can be used for massage that are natural and readily available include:</p> <ul style="list-style-type: none"> Coconut Oil Coco Butter Ground Nut Oil Shea Butter Palm Kernel Oil <p>Why use oil: This makes the skin more pliable and the hands of the masseur to glide more smoothly over skin being</p>
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			<p>massaged. The healing properties of the oils are absorbed into the skin.</p> <p>Class discussion on traditional oils that can be used in these therapies</p> <p>Demonstration on touch therapy - class participation</p>
Deep Relaxation	Lecturette Demonstration and return demonstration	15mins 40mins	<p>Deep relaxation is a lot like daydreaming. When you daydream, you alter your state of consciousness to the alpha frequency range, meaning you are conscious and aware, yet you remain oblivious to external distractions. Daydreaming is a perfectly normal, safe and healthy phenomenon in which we all engage from time to time. Sometimes a daydream is so intense and goal-oriented that the person achieves the goal. This usually happens spontaneously and without deliberate intent</p> <p>In both daydreaming and deep relaxation, your mind being adjusted to the alpha frequency range means that it is directed to specific beneficial goals that you wish to achieve and not to the fantasies. Just as a magnifying glass concentrates the sun's energy powerfully focusing it into one spot; deep relaxation concentrates one's thoughts into one powerful suggestion.</p> <p>Technique of Slow breathing</p> <p>Lying on your back or in a lateral position, as described previously, place your hands across the top of your abdomen.</p> <p>Exhale briefly to clear your lungs and nasal passages.</p> <p>Slowly and gradually draw in your breath to a count from 1 to 20.</p>

		<p>Avoid using short intakes of breath; This can tire you and requires that you take several breaths in order to get through the surge. The intake count up to 20 and the equally slow exhalation will allow you sufficient time to work with each surge.</p> <p>If it is necessary for you to take a second breath during a surge, do so in the very same manner. Do not hold your breath. Never!</p> <p>Keep your body still and limp - NOT STIFF</p> <p>Visualize your abdomen as being similar to a crater. The rest of your body beneath the crater is totally relaxed and still while you breathe up each surge.</p> <p>The Glove Relaxation technique that you will learn later is a good technique to use throughout this time when you will be working with your surges in the first stage.</p> <p>While breathing in, focus your attention on your rising abdomen and bring the surge up as much as you can;</p> <p>Visualize filling a balloon as you draw in air. Slowly exhale to the same count, breathing downward and outward. Visualize the balloon slowly drifting off into space.</p> <p>Give your breath to your baby, gently and slowly exhaling down into your vagina.</p> <p>You may find at first that you will reach an intake count of only 13 to 15.</p> <p>This is not unusual. You'll stretch the</p>
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			<p>count the more that each time you do this exercise. Your count will rapidly increase to the long, slow intake.</p> <p>Regardless of how high a count you achieve, the technique of fully expanding the abdomen will be with you when you need it for labour. When each surge takes place, you will feel the results of your practice, as you successfully work with the surge in appropriately long intakes of breath and equally long exhalation. Just as when you are doing sleep breathing, you won't need to use the count once you have learned this technique.</p> <p><i>Imagine a magnificent, colored balloon. Each count of your breath brings more and more air into the balloon until, at last, the filled balloon gently drifts out over the landscape of your mind, and you slowly breathe down to prepare for the next balloon,</i></p> <p>"</p>
Cultural display: Traditional versus "Hip-Hop"	Lecturette Plenary discussion	30mins	<p>Discuss traditional cultural dancing and its benefits to healthy living.</p> <p>Definition of Hip-hop culture: A culture created through music, dress & language and imitated by the present-day youth.</p> <p>This culture is characterized by rejection of parental guidance, total disrespect for women, pro-sexual freedom, an irresponsible lifestyle and gangster spirit.</p> <p>Hip-hop videos: They show a life of degeneration.</p>
Positive sounds: Effects on health, spirituality, and	Lecturette Plenary discussion	30mins	<p>Definition of positive sounds: Positive sounds are vibrations (words, music, and poetry) that have a beneficial or nurturing effect on the body and mind.</p>

<p>physical well-being</p>		<p>This can be conscious or unconscious.</p> <p>Music therapy is the use of music as an addition to relaxation therapy or any psychotherapy to bring out expressions of suppressed emotions, by prompting patients to dance, shout, laugh or cry in response.</p> <p>Effects of positive sounds on human body: Positive sounds enhances health by stimulating positive thinking, relaxing the mind and the body, encouraging laughter and high spirits.</p> <p>Class listening exercise - to associate images or words with positive sounds.</p>
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Session 5

MAINTAINING PERSONAL HYGIENE, INTERNAL CLEANSING, ENVIRONMENTAL SANITATION AND KEEPING HEALTHY

Terminal Competence

1. Maintain personal external and internal cleanliness and healthy environment
2. Appreciate personal and environmental health

Specific Objectives

1. Outline the components of personal hygiene and environmental sanitation
2. Explain the effects of personal and environmental hygiene on health
3. Describe methods of internal cleansing
4. Suggest ways to improve personal and environmental health

Material resources required

Audio visual, posters, brochure, crystal (alum), local bath sponge (white), bulb syringe, enema bag, commercial soap, alata soap, lemon, shea butter, coca butter

Advance Preparation

Review manual and audiovisuals, collection of pictures, permission to visit waste disposal sites

Duration

3hrs 30mins

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Maintaining personal hygiene,	Q&A Lecturette Group and plenary discussions	60mins	Skin - the largest organ of elimination in the body. Cleansing the body externally is important for cleanliness and good health. Proper bathing - cleansing every area of the body with sufficient amounts of soap and water, using a cloth, net, loofah or suitable sponge. The friction helps to shed dead skin cells and toxins & assists the skin in breathing. Natural soaps - the use of natural soaps

			<p>without chemicals, such as black soap, is advised.</p> <p>The effects of commercial soaps on the body: the chemicals from the soap are sucked into the pores and can cause toxins to enter into the body.</p> <p>The purpose of natural deodorants: To alleviate body odor and allow the natural cycle of perspiration to occur, (natural cleansing process)</p> <p>Types of natural deodorants:</p> <ul style="list-style-type: none"> • Crystals (Alum) • Diluted juice of a lemon or lime • Baking soda • Other indigenous herbs or methods <p>Discuss Hair Care Use natural shampoos, black soap, etc., to clean the hair. This is important in stopping head lice and preventing head sores that can cause infection & thus sickness</p> <p>The negative effects of wearing wigs, weaves, processing (relaxers) and dyeing the hair: the chemicals that are used to dye and relax the hair slowly poison the body, cause hair loss, damage hair and make them brittle and can also cause sores on the scalp.</p> <p>Talk also about cleaning the face, nostrils, inside of ears, nails, hands and care of the feet.</p>
Internal cleansing,	Lecturette Video/film show Plenary discussion	40mins	<p>Definition of internal cleansing: The process of detoxification whereby the body flushes out internal waste/poison through the alimentary canal (large intestine). This is done by dislodging toxic mucous and post-putrefactive waste material embedded within its delicate walls by consuming safe and natural herbal laxatives/intestinal cleansers.</p> <p>Necessity of internal cleansing: To keep the</p>

	Demonstration and return demonstration	30mins	<p>blood clean. Clean blood enhances a disease-free body. The life of the body is in the blood.</p> <p>Types of internal cleansing</p> <ul style="list-style-type: none"> • Herbal formulas: taken by mouth to move bowels • Enemas: Colon irrigation <p>Fasting: limiting the intake of solid food for a set period of time, so as to allow the immune system a chance to eliminate toxins in the blood and give the organs of the body time to rest and recuperate. It is recommended to take lots of fresh vegetables, fruit juices & plenty of water at room temperature <u>but never ice-cold water.</u></p> <p>Occasions requiring internal cleansing:</p> <ul style="list-style-type: none"> • Fever • Skin rashes • Constipation • Cold/congestion • Transitioning diet • Change of season <p>Internal Cleansing, Part 2</p> <p>Introduction to colon irrigation therapy: The gentle introduction of water, or some herbal preparation into the colon via the rectum, administered to safely wash the walls of the bowel & eliminate toxic, fecal post-putrefactive plaque build-up.</p> <p>How is it used to heal the body? Once the highly putrefactive mucus plaque is removed from the alimentary canal, then blood becomes better purified. Purified blood is required to heal and to regenerate the human body.</p>
Environmental sanitation	Questions and answers Lecturette Field visits and plenary	20mins 60mins	<p>What is environmental cleanliness/ecology?</p> <ul style="list-style-type: none"> • Conscious concern about the health and cleanliness within the immediate and

	<p>discussion on findings and problem solving</p>		<p>surrounding area in which we live and function.</p> <ul style="list-style-type: none"> • Clean water sources • Proper means of human and animal waste disposal • Proper distance between animals and human living quarters • Proper disposal of rubbish • Measures to prevent malaria, typhoid, dysentery, cholera, hepatitis, etc.: • Insect screens on doors and windows • Getting rid of stagnant water <p>Environmental cleanliness: is important in preventing diseases, sickness and death.</p>
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Session 6

EFFECTS OF CLOTHING AND COSMETICS ON HEALTH

Terminal Competence

Use of natural fabric (clothing) and body products.

Specific Objectives

1. Identify natural, mixed and synthetic fabrics
2. Explain the effects of clothing and cosmetics on health
3. Identify the dangers linked with mixed and synthetic clothing, high heel shoes, skin lightening creams, nail polish, artificial eyelashes, hair relaxers and dyes, etc.

Material resources required

Audio visual, posters, brochure, samples of natural, mixed and synthetic fabrics, type of skin creams (including lighteners), powders, etc.

Advance Preparation

Review manual and audiovisuals, collection of pictures, samples of natural, mixed and synthetic fabrics, types of skin creams (including lighteners), powders, etc.

Duration

3hrs

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Effects of types of fabrics	Q&A Lecturette Video show Group and plenary discussion	60mins	What are natural and synthetic fibres/fabrics? Natural fabrics are those found in nature. <ol style="list-style-type: none">1. Recommended for use are 100% un-mixed cotton, linen, wool and silk.2. Not recommended to mix or combine fabrics of diverse fabrics, since they have different health properties, energy vibrations and purposes.<ul style="list-style-type: none">• Mixing diverse fibers

			<p>(even natural ones i.e., linen and wool) can cause ill-effects, such as allergies and even pain to the physical body.</p> <ul style="list-style-type: none"> • Mixing diverse fabrics can greatly decrease or compromise the body's own energy vibration and adversely affect the health of the wearer. <p>Among "natural" fibers spun from "natural" sources, some of them may or may not be suitable for vibrant health when worn as clothing. Some may adversely increase the body's level of susceptibility to disease and infection at a cellular level, because the molecules of the fabrics interface with the cells of the body.</p> <p>The body's cells are capable of absorbing fabric cells. It is advisable to use linen, cotton, wool and silk. Synthetics are fabrics created by man, sometimes entirely from chemicals combined with petroleum or other natural substances to produce fibres.</p> <p>Selection of Clothing for the Weather Under our tropical conditions, wearing clothing meant to conserve heat e.g., clothing designed for cold weather in Europe/America can:</p> <ul style="list-style-type: none"> • Create rashes that can get infected and cause serious problems; • As the body gets too warm during very sunny, hot days, blood is drained away from the brain, the body becomes dehydrated and this can cause fainting. The resulting fall to the
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			<p>ground can cause severe bodily injury.</p> <p>Tight clothing: Negative effects of wearing tight clothing: blood circulation is very reduced. This can cause varicose veins and other signs of poor circulation, such as poor posture, cystitis, and even cancer. Tight underwear has been proven to even cause sterility in men. They also portray the wearer as being promiscuous.</p> <p>G-string effect: This can cause genital inflammation that can get infected and can lead to infertility.</p> <p>The ill effects of wearing high heels: causes lower back pain, arthritis in the knees, strain on the uterus and other female organs, disfigured feet, pinched nerves. There is additional of tripping and falling or twisting the ankle.</p>
Selection of clothing	Lecturette Demonstration and return demonstration Role play Plenary discussion	60mins	<p>How to test for natural fabrics—the burn test.</p> <p>Test a small piece of a natural fabric. Compare it with a small piece of a synthetic one, By igniting and quickly blowing out the flame on both pieces to avoid burns or injury.</p> <ul style="list-style-type: none"> • The natural fibers should burn into a powder or a soft ash and smell like burnt wood, paper or hair. • Synthetics bubble down, melt, become hardened and smell like burnt plastic. If these fabrics are burnt or overheated while worn on skin, they can cause severe burns to the skin. <p>Natural fabrics allow the skin - the body's largest organ of elimination, to breathe.</p>

			<p>Synthetics do not allow the skin to breath. Toxins released from the body through sweat are reabsorbed back into the skin through the pores.</p>
<p>Effects of cosmetics on health</p>	<p>Lecturette Video show Role play Group and plenary discussion Samples</p>	<p>60mins</p>	<p>Bleaching the skin thins the skin, causes skin disorders such as acne, turns the skin dark in some cases and also may lead to cancer. Some of bleaches contain mercury and can damage the kidney</p> <ul style="list-style-type: none"> • Relaxing creams contain harsh chemicals such as sodium hydroxide (lye), used to unclog drainage pipes, • Permanently weaken hair and • Seep into the brain, bloodstream and bodily organs through the pores of the scalp. • Less powerful relaxing chemicals, e.g., Guanidine Hydroxide and Ammonium Thioglycolate still damage and weaken the hair. • These chemicals cut the cross-bonds inside each hair follicle, which gives the straightening effect. • Can create predisposition to hypertension • They slow down the wound healing process <p>Here are more examples of other harmful chemicals found in now “common” cosmetics which decades ago were un-heard of and un-needed:</p> <p>From http://www.home-bodydetox.com/toxins.html</p> <p>Ammonium persulfate is found in hair color and bleaching kits. It may cause itching, burning, scaling, hives, and blistering of skin, lung problems and can initiate asthma attacks.</p>

		<p>Kajoic acid is found in skin lightening products. It inhibits melanin production. See Hydroquinone</p> <p>Hydroquinone is found in skin lightening products and hair dyes. Hydroquinone is severely toxic. This chemical alters the skins natural structure inhibiting the production of melanin. Without natural protection, the skin is more susceptible to skin cancer caused by sun exposure.</p> <p>Sodium hydroxymethylglycinate is found in facial moisturizer, facial cleanser, facial treatments, skin fading and lightening products, anti-aging products, eye makeup remover, concealers, makeup remover, around eye cream, acne treatment, shampoo, conditioner, styling lotion and gel, styling mousse and foam, hair spray, and even hair relaxer. It can be contaminated or broken down into chemicals linked to cancer or other significant health problems.</p> <p>Bentonite (Clay) is found in soaps, facial masks and cosmetics. It does not allow CO₂ out or O₂ in; suffocates the skin and traps toxins.</p> <p>Benzoic acid is found in pharmaceuticals and cosmetics as well as canned goods. It is used as a food preservative. Inhalation may affect the nervous system. Benzoic Acid is relatively toxic and is also a severe eye and skin irritant.</p> <p>Butylparaben is found in body products. This substance poses a potential risk of breast cancer. It contains an endocrine disruptor which can cause infertility or development</p>
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		<p>problem, as well as an increased risk for certain types of cancers. It is found in cosmetics. Inhalation may cause chemical pneumonitis.</p> <p>Hydroabietyl alcohol is found in styling gel/lotions. It is considered unsafe for use in cosmetics.</p> <p>NDEA is often used in cosmetics to adjust the pH and with many fatty acids to convert acid to salt. This forms when DEA reacts with nitrosating agents or the actual addition of nitrite as a preservative. Since this ingredient is impossible to trace, it is imperative to avoid all products containing DEA because it is a known carcinogen.</p> <p>Fluoride Found in toothpastes. It may contain lead, mercury, cadmium and arsenic. It accumulates in the body over time and contributes to bone disease. It is carcinogenic.</p> <p>Glycolic Acid is found in creams, lotions, and cosmetics. It is a penetration enhancer that alters basic skin structure, allowing other chemicals to penetrate deeper into the skin and reach the bloodstream. It can cause itching, burning, scaling, hives, and blistering of skin. It is a toxicant, neurotoxin, kidney toxicant, gastrointestinal or liver toxicant.</p> <p>Hydroxymethylcellulose is used in cosmetics; its inhalation could cause chemical pneumonitis.</p> <p>Kaolin (Clay) is found in face powders and cosmetics. It suffocates and weakens the skin.</p>
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		<p>Paraffin is found in cosmetics and food. It is a potential carcinogen.</p> <p>PEG is found in foods and body products. PEG may contain ¼-dioxane which is a possible carcinogen, estrogen mimic and endocrine disruptor. It can only be removed from a product through vacuum stripping during processing.</p> <p>Phenoxyethanol has been known to show a possible connection to reproductive or developmental harm to fetuses. It also has a potential for reduced fertility and is classified as toxic and an irritant. It has potential risks to wildlife and the physical environment through excretion of toxins out of the body and the disposal of cosmetics.</p> <p>Polyethylene glycol /PEG is found in cosmetics, body products, foods and lotions. It is relatively toxic, an eye irritant and a possible carcinogen. Many glycols cause severe acidosis, central nervous system damage and congestion.</p> <p>Anabolic Steroids</p>
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MODULE 3: MOTHER AND CHILD HEALTH

Session 1: OVERVIEW AND INTRODUCTION

Terminal Competence

1. Understand the challenges of pregnancy and needs of the pregnant woman
2. Education of pregnant women, fathers, youth and community to better cope with pregnancy and child birth

Specific Objectives

1. Describe and explain the changes that take place in pregnancy
2. Describe the physical, mental, emotional, social and nutritional needs during pregnancy
3. Explain the family, community and healthcare support systems for pregnant women
4. Prepare pregnant women to cope with or adopt positive attitudes to pregnancy and childbirth

Material resources required

Flip chart, posters/picture, dummy of a pregnant woman, video/film on pregnancy, VRC/DVD, projector and screen, slides

Advance preparation

Prepare slide and flip chart, assemble teaching materials and aids, test audio/visual equipment

Duration

2 hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction and overview	Q&A Lecturette	10 minutes	a. Pregnancy is when a woman is expecting a baby. b. Pregnancy should be a matter of choice by the family. That is the reason why family planning is recommended. Originally, family planning did not include abortion c. It is special in a woman's life and she has special needs. d. The woman, her family and community are responsible for making sure that she receives the care and attention she needs.

			<p>e. It is important for a woman to stay healthy all the time and much more so during pregnancy.</p> <p>f. Therefore, every pregnant woman needs good health, good food, love and support of her husband, family and community.</p> <p>g. Many women feel healthy during pregnancy and don't have difficult births. Their babies are usually born healthy.</p> <p>h. Pregnancy can be one of the challenges a woman faces in her life, if her health requirements are not provided for. She may die from complications of pregnancy and child birth.</p> <p>i. With early basic care, most of these deaths can be prevented.</p> <p>When do we start preparing for pregnancy? Creating a positive state of mind for the woman?</p>
<p>Body functions during pregnancy</p>	<p>Brainstorm Lecturette</p>	<p>15 minutes</p>	<ul style="list-style-type: none"> - Early signs of pregnancy A missed period, swelling and tenderness of the breast, nausea, vomiting, loss/increase of appetite, passing urine frequently, easily feeling tired. - On examination (by a healthcare provider) may notice: Changes in the neck of womb, feel size of womb and a urine test – all help to confirm the pregnancy. - Changes occurring include physical, emotional, and social. - Physical changes: menstruation ceases, breasts enlarge, weight gain, sweating, easily getting tired, - Emotional changes – there are frequent mood swings; desire/craving for substances without nutritional value that may even be harmful (called pica). e.g., eating clay, soap, sand, etc. These cravings are the body's cry for particular nutrients. Blood testing can

			<p>help the diagnosis of depletion. May be anxious about health of the fetus and worried about whether the baby will be normal.</p> <ul style="list-style-type: none"> - Social changes: pregnancy may affect family stability, can create tension and conflicts among partners and families <p><u>Hormonal changes</u> Hormones are powerful chemical messengers that alter consciousness and need to be understood. During pregnancy an intricate and well balanced combination of hormones is released to assist and prepare the female body for pregnancy, labor, birth and lactation.</p> <ul style="list-style-type: none"> • Soften tissues, muscles and bones to facilitate easier labor and birth. These changes may cause digestion to slow down • Develop milk for nursing, as the body anticipates the birth of a baby. • Develop and grow the fetus <p>During this time the expectant mother will experience mood swings, due to the release of these special hormones.</p> <p>Any negative emotional change will in turn adversely affect the developing fetus. Therefore, expectant mothers need the support of the husband and family to overcome emotional changes.</p>
Body needs during pregnancy	Group and plenary discussion	25 Minutes	<ul style="list-style-type: none"> • Positive state of mind • Good self-care is vital for safe pregnancy and delivery and a healthy baby. • Good nutrition includes drinking plenty of clean water: gives strength, prevents infection, builds healthy baby and helps prevent too much bleeding during delivery. • Sleep and rest: Avoid undue fatigue

			<p>during travels.</p> <ul style="list-style-type: none"> • Exercises and recreation in moderation • Personal hygiene: reduces risk of infections • Wear loose clothes made of natural material (cotton) and use of braziers that fit well. • Comfortable shoes with low heels relieve aches in feet, legs and back. • Avoid use of alcohol, tobacco, non-prescribed medications, including negative traditional practices of taking herbs, environmental pollutants. • Have pre-natal check-ups as prescribed (At least 6 times during pregnancy) • Develop ability to recognize life-threatening signs during pregnancy and act promptly. • Social support (husband, family, members and significant others) • Medication, affirmation, prayer (MAP)
Positive state of mind during pregnancy	Group work session Lecturette	35 minutes	<ul style="list-style-type: none"> • Physical, emotional and social changes during pregnancy produce significant stress in the woman. • Pregnant women need to develop a positive state of mind toward the pregnancy, and its outcome. • This is achieved through relaxation techniques such as: <ul style="list-style-type: none"> ▪ Listening to calming and inspiring music. ▪ Reading positive literature ▪ Deep breathing exercises and prayers ▪ Having a supportive environment provided by partner, family including children, and co-workers. ▪ Resting the mind, tolerance and companionship, and family support. <p>The fetus also needs a conducive environment (internal and external support) for development. The fetus can relate to the external environment During the first 6 weeks, the development</p>

			<p>of the nervous system, brain, spine, eyes, ears and nose digestive system, liver, kidney, arms and legs takes place.</p> <ul style="list-style-type: none"> • The ears appears in the 3rd week • By the 16th week the ears are functional • Can actually discern voices at 24 weeks, such as those of mom, dad, sibling, normal daily consistent sounds <p>If the mother's disposition is affected by anger, tension, fear, joy and happiness and love, it can in turn affect the development of the fetus (nervous system, mental development, physical development). A peaceful and healthful environment must be created for the mother and child to be.</p>
Support systems to put in place for pregnant women	Plenary discussion interspersed with lecturette	45 minutes	<p>Support systems for pregnant women are at different levels. These include:</p> <ul style="list-style-type: none"> – <u>Husband and family</u> <ul style="list-style-type: none"> ▪ Provide physical and emotional support, meeting physical and basic health needs. ▪ Recognize early danger signs and acting promptly ▪ Support during exercises. – <u>Community</u> (e.g. mother support group) <ul style="list-style-type: none"> ▪ Sharing experiences. Being each other's keepers ▪ Organize structures and procedures to avoid delays in times of emergency ▪ Establish positive habits ▪ Caring for other children. – <u>Work place environment</u> <ul style="list-style-type: none"> ▪ Provide safe work environment ▪ Minimize fatigue and work overload. – <u>Health facility level</u> <ul style="list-style-type: none"> ▪ Establish focused ANC ▪ Promote positive/healthy lifestyles ▪ Provide humane customer-focused service.

			<ul style="list-style-type: none">▪ Promote home-visiting.▪ Encourage registration with NHIS
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Session 2: PRE-NATAL CARE (Antenatal Care)

Terminal Competence

1. Educate pregnant women, their families and communities to adopt the right techniques in antenatal care
2. Where necessary, promptly refer antenatal women for professional care

Specific Objectives

1. List the elements of prenatal care
2. Describe the importance of prenatal care
3. Identify problems associated with the antenatal period and manage them effectively
4. Explain the importance of proper nutrition and diet during pregnancy
5. Explain the antenatal visit requirements
6. Discuss the role of husband, family and community during the prenatal period
7. Explain the benefit of massage, exercise and deep breathing during antenatal period
8. Demonstrate the techniques of massage, exercise and deep breathing to pregnant women

Material resources required

Food items, flip chart, video/film on exercises, massage and deep breathing during pregnancy, open area with chairs

Live pregnant women for massage and exercising

Advance Preparation

Prepare flip charts/slides, Food items, Demonstration room/space, Place posters, Advance information to antenatal clinic, pre-draw perineum (p. 50), breast (p. 79) and list affirmations (p. 49) of source manual.

Duration

5 hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction and overview	Q & A Interspersed with Lecturette	15mins	Pre-natal care: Healthcare given during pregnancy, including early prenatal care; •Regular prenatal care, •Recognize life-threatening signs during pregnancy and act appropriately.

			<ul style="list-style-type: none"> •The pregnant woman MUST have at least six (6) prenatal/antenatal care visits during each pregnancy. <p>Components of prenatal/antenatal care:</p> <ul style="list-style-type: none"> •Counseling and health education •Laboratory investigation •Physical examination •Prophylactic treatment and immunization. •Treatment of illnesses. • Referral where necessary
Antenatal visit requirements	Lecturette	25mins	<ul style="list-style-type: none"> • Antenatal care addresses basic health needs of pregnant women. • A pregnant woman MUST have at least six (6) prenatal/antenatal care visits during each pregnancy. ANC may be initial or continuing <p>Initial ANC:</p> <ul style="list-style-type: none"> • Must be started as soon as the woman recognizes she has missed a period, has previously had unprotected sex and is in the reproductive age range (15 – 49). In addition, the universal standard visit requirement is that ; At 7th month – once that month At 8th month – 2x in the month At 9th month – once every week • Services provided include <ul style="list-style-type: none"> • taking record of the general characteristics of the woman and family (biomedical data), • confirmation of the pregnancy, • examinations (physical and laboratory including STI and HIV/AIDS), • establishing schedule for visit by the woman, • counseling and health education, • reproduction health history, • medical, surgical, mental, social history, physical examination, • prophylactic treatment

			<ul style="list-style-type: none"> • immunization, including iron, folates, anti-malaria (IPT), treatment of illnesses, referral where necessary <p>Subsequent visits: services provided include:</p> <ul style="list-style-type: none"> •History of problems since last visit, •Short physical examination – weight, blood pressure, urine test, listening to fetal heart, checking the lie of baby. •Appropriate health education and counseling. •Advice on where to deliver <ul style="list-style-type: none"> ▪ Referral where necessary
Role of support systems (what they are expected to do)	Group and plenary discussion	45mins	<p>Social support systems</p> <p>Support systems for pregnant women are at different levels. These include:</p> <ul style="list-style-type: none"> •Household/family level (especially the husband) •Provision of physical and emotional support, •Accompany woman if possible. •Provision of transportation and other resources. •Participation in planning towards safe delivery in decision-making and provision of resources •Recognition of early danger signs and acting promptly •Support during exercises. • Massage throughout pregnancy and during labor •Community (e.g., mother support group) •Sharing experiences. Being each other's keepers •Putting structure to avoid delays in times of emergency •Establishing positive habits •Caring for other children. •Work place environment •Give permission to attend ANC

			<p>regularly.</p> <ul style="list-style-type: none"> •Honor excused duties & provide maternity leaves. •Provide safe work environment •Minimize fatigue and work overload. <p><u>Health facility level</u></p> <ul style="list-style-type: none"> •Provide focused ANC service •Promote positive/healthy lifestyles •Promoting home visits. •Provide resources for managing emergencies •Observe infection prevention practices. •Promote men as partners in healthcare delivery. <p>Introduce client to exclusive breast feeding and family planning.</p> <p>Provide health education on common and major health problems linked with pregnancy and what the family should do when these are observed.</p> <p>Extra care should be paid to adolescents, women over 35 years, women whose pregnancies are less than two (2) years apart, shorter women (less than 150 cm/5 feet, women who had problems with an earlier pregnancy and/or delivery and women who have a medical problem with their current pregnancy. Refer promptly when necessary.</p>
Nutrition and diet	Lecturette Demonstration	30mins	<p>Diet and nutrition is important for the pregnant woman and the fetus. A pregnant woman needs extra food nourishments because of the developing baby. She has to eat enough to meet her body needs and the needs of the baby in the womb. The diet should be well-balanced.</p>

		30mins	<p>beneficial. Since this causes slight sweating that calls for a bath, the entire effect is greatly enhances sleep during the night..</p>
		30mins	<p><u>Squatting exercise</u> This should be done daily for 3 – 5 minutes at a time. It helps to strengthen the leg muscles Techniques:</p> <ul style="list-style-type: none"> •Stand while holding onto something firm to help keep balance. •Keep feet slightly apart •Slowly bend knees, while keeping the back straight. •Rise slowly, while holding onto the support for balance. •Repeat this exercise 3 – 5 times. <p>Note: Do not do this exercise if painful to the knees.</p>
		30mins	<p><u>Pelvic rock exercise</u> Technique:</p> <ul style="list-style-type: none"> •Get down on hands and knees •Pull in abdomen and lift buttocks •Hold for a count of 5. •Gently relax abdomen and buttocks, allowing the curve of the back to return to normal position. •Repeat the exercise 5 -6 times
		30mins	<p><u>Rib cage lifting</u> Technique:</p> <ul style="list-style-type: none"> •Sit down on a mat/cloth and cross legs. •Curve arm over the head and hold it for 3 seconds and return it to the original position •Repeat the exercise with the other hand. •Repeat these for 4 – 5 times.
		30mins	<p><u>Head and Shoulder lift exercise</u> Technique:</p>

		30mins	<ul style="list-style-type: none"> •Lie down on the back with knees bent. •Keep feet flat on the floor and arms at the sides •Raise the head and shoulder and tighten abdominal muscles. •Hold this for a count of 5 and release gently. •Do not hold your breath •Lie back and relax •Repeat the exercise 5 – 10 times. <p><u>Kegel exercise</u> <u>Technique:</u></p> <ul style="list-style-type: none"> •Tighten the muscles around the anal opening and vagina (as if holding back urine) •Hold for a count of 3 – 5 and relax •Repeat for 5 – 10 time. <p>The exercise can be done anytime during the day when sitting down, standing or lying.</p> <p>Additional Antenatal Exercise available via AHDA DVD on exercise.</p>
		30mins	<p><u>Deep breathing and Relaxation</u> Proper breathing gives the mother a sense of control and relaxes her so that labour and delivery are less stressful. This exercise strengthens the lungs, heart and the organs in the chest.</p> <p><u>Technique:</u></p> <ul style="list-style-type: none"> •Lie on the back or in a lateral position. •Place hands across the abdomen and keep relaxed. •Breathe in deeply and out slowly. •Focus your attention on a particular thing to maintain concentration. •Repeat the exercise as you feel.
		30mins	<p><u>Massage</u> Massage is a wonderful way of helping a pregnant woman better cope with her</p>

			<p>physical changes and also childbirth. Massage combats tension and fatigue, improves blood and oxygen circulation, It soothes and relieves a woman who is tense.</p> <p>Massage also intensifies bonding between a pregnant woman, her partner and baby.</p> <p>Simple touch massage movements help to relieve many stresses and discomforts of pregnancy.</p> <p>After about the 4th month of pregnancy, it becomes uncomfortable to lie on the stomach. She may lay down on the side or may sit up on a stool or chair without arms with a pillow for leaning forward, especially for massaging her back</p> <p>Expectant mothers should not raise their hands/arms over their heads or above the shoulders – this could cause the umbilical cord to wrap around the fetus neck; or more rarely cause detachment of the placenta from the uterus (full or partial abruption of the placenta).</p> <p><u>Technique:</u></p> <ul style="list-style-type: none"> • Sit on a chair without a back. • The massager uses natural oil or pomade and massages the body from head to toe in a systematic manner • Refer to attachment on massage • Perineal massage begins 6-8 weeks to the due date for delivery. • It is the oldest form of massage. • Helps to prevent episiotomy or tearing. • It helps improve blood flow, elasticity and relaxation of pelvic floor muscles. • Massage can be done daily with natural oil • The prostaglandins hormone in semen helps to soften vaginal
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			<p>tissue; sex is alright, as long as the woman is physically and emotionally ready.</p> <p>Rationale for massaging specific vital areas</p> <p>Simple touch massage movements can relieve many stresses and discomforts and back massage is greatly welcome during labour. Basic massage can be tailored to a female's condition during stages of pregnancy.</p> <ul style="list-style-type: none"> • You can add or subtract facial and breast massage to your routine • Observe the rest period. • Remind her to drink water after massage • Massaging briefly in the jaw joint relieves tension in that area • As the breasts become heavier massaging the shoulders and neck alleviates tension • Massaging waist, elbow, knee, ankle joints alleviates tension, cramping and swelling and varicose vein • Frequent massage behind the knee with continual circular motion greatly relieves pain and stress that occur with increasing weight of an expectant mother • Firm, pulling strokes from back and waist to the navel with oiled hands prevents itching caused by stretched skin, relieves tension in the abdomen. This is a great time to talk to the unborn child who is also benefiting from the mother's massage. • Massage her toes but never massage the soles of a pregnant woman's feet. There are many nerves leading to various body
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			<p>organs that may be over stimulated and cause premature uterine contraction which may induce labour</p> <ul style="list-style-type: none"> • If mother has varicose vein, do not do any heavy massaging on these areas –little to none is best in this case. • Breast massage helps to strengthen and prepare nipples and future milk flow for the prospective infant.
			<p>Posture tips:</p> <ol style="list-style-type: none"> Expectant women SHOULD NEVER wear high heeled shoes. Elevate feet whenever possible, to aid blood circulation Avoid lying on the back – uterus weight on the spine will constrict important blood vessels <p>Lie on the side, to alleviate tension on the hip joints</p> <p>Never extend arms higher than the shoulders, to prevent the umbilical cord from wrapping around the neck of the fetus.</p>

Session 3 **PERSONAL AND ENVIRONMENTAL HYGIENE AND THE USE OF NATURAL PRODUCTS**

Terminal Competence

1. Promote appropriate personal and environmental hygiene during and after pregnancy
2. Encourage the use of natural products by mother and child

Specific Objectives

1. Describe personal-hygiene practices during pregnancy, labor, delivery, and after delivery
2. Explain the benefits of use of natural products for mother and baby
3. Explain environmental-hygiene practices and how these affect pregnancy, labor, delivery and after delivery
4. Demonstrate appropriate personal and environmental hygiene practices for pregnant women
5. Exhibit natural products for mother and baby needs

Material resources required

Flip chart, video/films, projector, natural products for use by mother and child, black soap, water bowls and water, hand towels, shea butter , olive oil, cocoa butter, groundnut oil, palm nut kernel oil

Advance Preparation

Prepare flip chart, Assemble washing materials

Duration

4 hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Overview and Introduction	Lecturette	5mins	
Personal hygiene	Group and plenary discussion Demonstration	20mins	<ul style="list-style-type: none"> – Keeping clean during pregnancy is very important, due to increased sweating and vaginal secretions. – Bathing twice daily is important. – Special care should be given to the hair, face, teeth, nipples, hands, legs, perineal and genital area. – Regular washing of the face, hands

			<p>and feet are useful ways of preventing infections.</p> <ul style="list-style-type: none"> – Observe regular and proper hand washing before and after meals and also after attending toilet. – Use loose fitting natural fabric clothing: linen, cotton, silk and wool and change and wash them regularly – Use brassieres that fit well, with straps that do not dig into shoulders and clasping does not tighten and cut off milk ducts or capillaries near breasts. Use low-heeled comfortable shoes/sandals. This helps the woman adjust to her shape and size.
Use of natural products	Display of natural products Plenary discussion Lecturette	65mins	<ul style="list-style-type: none"> – Pregnancy involves the lives of a mother, a baby and the family. – It is important to use only natural products in the form of food, drinks, fabrics and cosmetics, to avoid chemical poisoning to both mother and baby.. – Natural body products from natural oils and talc are advised for use in pregnancy. – Natural fabrics provide adequate ventilation for the skin. – Underwear and sanitary pads made from cotton and gauze materials are the best for pregnant women. – Pregnant woman should avoid the use of wigs, nail polish, harsh hair and skin toning creams. Harmful chemicals from these can be absorbed into the skin and can cause health problems to mother and baby <p>Effects of clothing during pregnancy Daily wear should be clean, loose fitting and comfortable. Due to 10 degrees increase in temperature, binding and synthetic clothing will inhibit the body from breathing and properly sweating out</p>

			<p>toxins</p> <p>Tight fitting brassieres cause strain on shoulders and the cup and fastening will close off milk producing ducts</p> <p>Tight and synthetics pants will cut off oxygen and blood flows to reproductive organs and prevent proper ventilation for the vagina.</p> <p>Shoes must be low-heeled and comfortable to prevent problems of the lower back, lower abdomen and loss of balance.</p>
Environmental hygiene	Brainstorming Plenary discussion		<ul style="list-style-type: none"> – Environmental hygiene at family and community levels is important to the health of pregnant women and the community at large – Poor environmental hygiene poses threats of infection to pregnant women, whose immunity gets lowered by the pregnancy. – It is important that the family and community maintain a clean environment in the home and in the community. <ul style="list-style-type: none"> ▪ There should be proper refuse disposal. ▪ Stagnant waters must be drained and bushes cleared to prevent the breeding of mosquitoes and vermin. ▪ There should be an effective control of stray animals within and around compounds.

Session 4 PREPARING FOR LABOR AND DELIVERY

Terminal Competence

1. Educate pregnant women and their social support groups on the preparation and support needed during pregnancy, labor and delivery
2. Promote the provision of safe and comfortable labor and delivery

Specific Objectives

1. Explain the importance of preparing for labor
2. Explain the process of labor and delivery (normal and abnormal)
3. Describe the role of pregnant women, husbands, family, community and others that are significant during labor and delivery
4. State how the woman can prepare for delivery
5. Explain the different delivery positions, their advantages and disadvantages and how to use them
6. Demonstrate the support given to the woman, husband and others that are significant during labor and delivery
7. Demonstrate the preparation of the delivery area

Material resources required

Flip chart/slide, posters, pictures, film/video on different delivery positions, dummy

Resource Person

Pregnant woman

Advance Preparation

Prepare slide/flip chart, Test equipment, Assemble dummies, Video clips and posters

Duration

3hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction and overview	Brainstorming Q&A Lecturette	15mins	<ul style="list-style-type: none">– Labor and delivery are important and crucial events in the process of pregnancy and childbirth.– The outcome of these events has important implications on the health of the mother and the child.– All stakeholders and social support systems have important roles to play in making labour and delivery safe and rewarding for the woman and the

			<p>family.</p> <ul style="list-style-type: none"> - Successful and incident-free labour and delivery are achieved through a healthy pregnant woman and planning towards the event. - It is important that the mother is educated on different positions for labor and delivery and their respective advantages and disadvantages for the mother and baby. - The woman should be aware of and be able to enjoy the support of her partner during childbirth. She should also be aware of the, natural ways of childbirth, the social environment in which the baby will be born and its effect on her - The woman should be trained on how to alleviate the tension and fears linked with labor and delivery. - The woman should be taught the techniques for remaining in a calm state, during the painful stages of labor. These include: <ul style="list-style-type: none"> ▪Deep breathing exercises, ▪Counting breaths and consciously commanding the baby to release tension - The woman should be taught relaxation techniques to control pain during labor.
Preparing for labor	Lecturette Group and plenary discussion	45mins	<ul style="list-style-type: none"> - Preparing for labor and delivery starts from the early stages of pregnancy. - The preparation should focus on the following issues: <ul style="list-style-type: none"> •Where to deliver •What items to put together for the event •How to store or preserve these items. - Planning for a support team that includes the partner, transportation and a clean birth place are very important. - By the seventh month of pregnancy, baby and mother items for confinement

			<p>must be assembled. The items needed may vary by faith, culture, and type of facility in which the delivery will take place.</p> <ul style="list-style-type: none"> - Basic items needed in every situation include the following: <ul style="list-style-type: none"> o Parazone/bleach o Soap for washing hands and clothes o Scrubbing brush o Sterile gloves and plastic bags o New razor blades o Clean string o Flash/torch light o Blunt-tipped scissors o Sterile needles and gut thread o Suction bulb/syringe o Ergometrine
Preparing the delivery place or labour room	Site visit Demonstration and return demonstration	40mins	<ul style="list-style-type: none"> • Infection has been found to be one of the five major causes of illnesses and death in mothers and new born babies in Ghana. • It has also been found out that most of these infections are largely preventable through simple ways of cleaning and hygiene. • One major way to prevent infection is to keep the labor and delivery place/room clean and to use sterile materials, supplies and equipment. • The labor and delivery place/room is a place where a pregnant woman is counseled through the birthing processes that brings a new-born into the community. • The basic requirements for proper care during labor and delivery at home or a TBA's premises or in the clinic/hospital are generally the same. These include the following: <ul style="list-style-type: none"> o The delivery room should be clean, have fresh air and offer privacy o Instruments that will be used, e.g.,

			<p>razor blades, scissors, needles and syringes, thread, etc., must be clean and sterile. This is because unclean instruments and supplies can cause infection.</p> <ul style="list-style-type: none"> o Soap and water (preferably running water) for use by the birth attendant, for thorough hand washing. Gloves should be used to avoid infection to both the mother and the attendants. o Clean towels, cloth and cotton wool. o Life-saving fluids and injections approved by the health sector. o For best care, the birth attendant should be experienced enough to recognize danger signs in labor and delivery and to take appropriate actions. o In case the delivery is taking place at home/at a TBA's premises or in a first/second level facility, arrangements for transport should be made, just in case a complication develops, the patient can be rushed speedily to better facilities for the birth. <p>NOTE: Check for signs of complications during labor and delivery (pg..... of source manual). All basic requirements indicate that it is important to sanitize a labor and delivery room, sterilize all tools and equipment in line with approved procedures for preventing infection and prepare for emergencies for both mother and new born.</p> <ul style="list-style-type: none"> • The birth attendant should have home-based life saving skills for mother and the new-born. • A pregnant woman may start labor at home or in the health facility. Wherever the delivery is to take place must be well prepared and clean.
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			<ul style="list-style-type: none"> • All the necessary items required for a safe delivery must be made available. <p>Preparing the delivery place in the home:</p> <ul style="list-style-type: none"> • This is likely to be the woman's own room or in the house of a TBA. • Ensure that the area is clean and airy. • Arrange all the necessary materials needed for the delivery. • Ensure that the woman in labor has sufficient room to move about. • Observe the woman at regular intervals and monitor the pain. • Arrange the delivery area according to the position preferred by the woman and partner. • Ensure that there is sufficient light to aid the delivery process. <p>Preparing the labor ward in health facilities:</p> <ul style="list-style-type: none"> • Clean the delivery bed with disinfectant and place a clean cloth on it, or • Arrange the delivery room according to the position preferred by the woman. • Arrange all materials accordingly.
Delivery positions	Demonstration and return demonstration	40mins	<ul style="list-style-type: none"> • Labor and delivery are physically and emotionally demanding experiences • Every society has its own traditional knowledge, attitudes, beliefs and practices on delivery. • A woman in labor should be helped to focus all her attention and energy on completing the processes of labor and delivery. • A woman should be as comfortable as possible during delivery. • Whatever position makes it easier for the woman to breath and push is acceptable. This is because she is an

			<p>individual and her request must be accepted.</p> <ul style="list-style-type: none"> • There are various positions used for delivery. <p>Some of the positions used are:</p> <ul style="list-style-type: none"> • Squatting – the mother squats each time she has a contraction. • Lying – while on the examination table/bed, she pulls her legs up, bent towards her chest. • Lying on the side • Kneeling (on all fours) • Chair position – the mother sits on the lap of her partner or one of the birth attendants/midwife and straddles her legs over his/her legs. • Sitting propped up • Sitting semi-upright (common in hospitals). The woman sits with her back supported and her knees apart. <p>It has been found that these positions help the baby and mother work with the natural forces of gravity.</p> <p>This helps to make the labor and delivery shorter and easier.</p> <p>In the health facilities:</p> <ul style="list-style-type: none"> ▪ The lying position is the most commonly approach. The woman may have her own preferred position for delivery ▪ It is useful to discuss the various positions with the woman and help her select her preferred position. ▪ Help the woman assume the position and make her comfortable. ▪ Encourage the partner to support the woman during the birthing process.
Role of father / partner during	Lecturette Plenary discussion	20mins	The partner/father has an important role to play during labor and delivery:

labor and delivery			<ul style="list-style-type: none"> ▪ As much as is possible, he should be encouraged to participate and support the woman during labor and delivery. ▪ His presence by the side of the woman from the beginning to the end of labor and delivery is extremely comforting. Fathers must be counseled on their role during labor and delivery, on the basis that the start of the pregnancy was a joint and shared responsibility and pleasure. Its continuation and ending should also be shared too. ▪ His role in labor and delivery should be positive and supportive to the mother. ▪ This positive support must include exercising patience in all situations. He must be tolerant with all stakeholders. <p>During labor, the partner could help the woman by:</p> <ul style="list-style-type: none"> • Encouraging her to carry out prenatal exercises. • Encouraging her to do deep breathing for relaxation • Massaging her. • Reading interesting passages to her. • Walking around with her <p>During the birth process, the partner could support by:</p> <ul style="list-style-type: none"> • Holding her hands • Talking calmly and soothingly to her • Wiping the sweat from the body • Providing emotional support
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Session 5 CHILD HEALTH

Terminal Competence

Promote child welfare and development.

Specific Objectives

1. Explain the immediate care given to the new born (immediately after birth to 24hrs)
2. Describe the care given to the baby within 3 days and subsequently up to 2 weeks
3. Describe how to manage the immediate health problems in the new born.
4. Explain the growth, development, monitoring and immunization schedules for newborn and children
5. Demonstrate the techniques of caring for the breast
6. Explain the importance of colostrums to the nutrition and health of the new-born
7. Explain the importance of initiating exclusive breast feeding within an hour after birth
8. Demonstrate the appropriate positioning of the new born for feeding
9. Discuss the health-promotion activities for children under five (including well-baby, immunization, sick babies and special needs)

Material resources required

Weighing Scale, charts on immunization schedules, flip chart, slides, projectors, dummies of woman and baby (mother support groups), soap, water bowls and water and hand towels/cotton cloth. A live infant between 2 – 5 months for the massage demonstration

Advance Preparation

Review source manual and power point slide, test projector, assemble materials for demonstration

Duration

4 hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction and overview	Q&A/brainstorming Lecturette Group and plenary discussion	45mins	<ul style="list-style-type: none">• Postnatal care is the care given to mother and baby, starting from immediately after delivery.• The neonatal period is the period between birth and 28 days of life.• The care given with the first 24 hours after birth is crucial for the new-born

			<p>babies, because they need a lot of care and help during this highly critical period.</p> <ul style="list-style-type: none"> • If the mother and baby are healthy then a few prescribed steps to follow will address the baby's needs. • Babies born too early, weigh less than 2.5 kg. These may include twins, triplets, etc, or those born to mothers suffering from HIV-AIDS. Due to their need for special care, these types of babies must be managed by trained health professionals and in equipped health facilities. • Basic care of the new-born within the first 24 hours includes the following: <ul style="list-style-type: none"> • Get the baby to start breathing • Wipe the mucous from baby's nose and mouth. • Keep the baby warm • Dry baby's body with soft, clean, cotton cloth or towel. • Wrap baby in a warm cloth • Give baby to mother to hold close to her body for warmth. • Keep baby on its side, with head slightly lower than the body to help drain fluids from the nose and mouth. • Check if the cord is still pulsating, wait until pulsating ends, (this assures that enough blood has entered the infant to alleviate possible anemia or has allowed adequate blood level for the newborn). The cord will become thin and white and stop pulsing; now the cord can be cut. <i>Some people wait for the placenta to be expelled before cutting the cord- this is a healthy custom.</i> • Use a sterile clamp or cord/thread to tie at two locations (see NOTE below) and use a clean blade or sterile scissors to cut the mid-point
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			<p>between these two points that have been tied and give proper care.</p> <p>NOTE: The clamps or ties should be 1 inch (two (2) fingers away) from the baby's belly and 3 inches farther up the cord (towards the placenta). [A square knot is the appropriate knot to tie] <i>See diagram to the right.</i></p> <p>Clean the stump of the cord at the baby's end with alcohol.</p> <ul style="list-style-type: none"> • Be attentive that there is no blood loss through the cord. Alert the midwife or doctor of any irregularities. • B.C.G. (Bacillus Calmette-Guerin) and polio 0 immunization at birth • Put the new-born to the breast within the first hour after birth. This allows the baby to suck colostrums and also for the baby contact with the mother. • Examine the baby from head to toe: • Pay attention to the vital areas to detect any defects or abnormalities. • Use the checklist for normal physical characteristics of a new-born as a guide for the examination of the baby. It is important for the healthcare provider to check the baby's color, breathing, pulse (heart beat), activity (muscle tone) and signs of crying, coughing or sneezing. • Check the baby's weight and length. • Give B.C.G. and polio 0 (at birth immunization). • Check for danger signs in the new-born. The danger signs in the new-born include: <ul style="list-style-type: none"> ▪ Breathing difficulties ▪ Blueness ▪ Patches on the skin ▪ Jaundice ▪ Weak cry ▪ Cold skin ▪ Persistent vomiting ▪ Poor feeding or not sucking.
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<p>Post natal care</p>	<p>Lecturette Group and plenary discussion Site visit and demonstration</p>	<p>45mins 50mins</p>	<ul style="list-style-type: none"> • Post-natal care (PNC) for the baby refers to the care given to the baby within the first 40 days/6 weeks after delivery. • Two (2) post-natal care contacts are made for a normal baby. • These contacts are made within the first 3 days and by the end of the 40 days/6 weeks. • The contacts are conducted either through home visits, at an outreach child-welfare clinic or in a health facility. <p>First PNC contact for mother and child in the first 3 days:</p> <ul style="list-style-type: none"> • This allows for a thorough head to toe examination of the baby for any abnormalities, as was done within the first 24 hours after birth. • Any questions or concerns regarding post-natal procedures, i.e. skin-to-skin contact, pre-lacteal feedings, appropriate cord care, immunization and sickness in the new baby are to be made to your health care provider, within the first 3 days after birth. • Screening for any diseases. • Advantages of breast feeding should be stressed to mother and the family. • Comfortable ways for breast feeding should be spelt out clearly to mother and family. <p>(See appendix XI (of which of the two texts -<i>Source Manual</i>) for details of comfortable methods for breast feeding mothers)</p> <ul style="list-style-type: none"> • This deals with the process of breast feeding and possible problems during breast feeding and how to manage them. <p>Second PNC Contact (within 4 – 6 weeks after delivery).</p>
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		<ul style="list-style-type: none"> • This is conducted through home visits, an outreach child-welfare clinic or in a health facility. • A thorough head-to-toe examination is done. • Any detected abnormalities are referred to the appropriate healthcare level for effective management. • Enquiries are made on proper breast feeding processes, treatment of any common ailments and immunization. • Standard screening for the baby and mother. • Any detected abnormalities are referred for treatment. • Mother and family are congratulated and praised when baby and mother are doing well, to encourage them maintain their well-being. • The mother and family are educated on availability and use of intervention packages for prevention and treatment of medical problems. <p>The preventive interventions are as follows:</p> <ul style="list-style-type: none"> ▪ Body massage for baby ▪ Exclusive breast feeding up to 6 months ▪ Continue breast feeding up to 2 years. ▪ Appropriate complementary feeding is started after 6 months. ▪ Use of insecticide-treated net (I.T.N.) ▪ Vitamin supplementation. ▪ Water, sanitation and hygiene. ▪ Complete baby's vaccination by 12 months of age (polio, penta, Hib Heb, measles, yellow fever, etc). <p>See Appendix ... (of which of the two texts? Source Manual) on Immunization Schedule)</p>
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			<p>The following treatments and interventions are also explained to mother and family:</p> <ul style="list-style-type: none"> • Anti-malaria interventions for malaria prophylaxis and treatment for malaria in infants; • ORT and zinc for diarrhea • Antibiotics for dysentery and pneumonia • Vitamin A supplementation • Management of severe malnutrition • Management of HIV infected / exposed babies.
Breast care and feeding	Lecturette Demonstration and return demonstration	40mins	<p>Breast care is the preparation of the breasts before delivery and in nursing a baby. Complications that can arise during breast feeding are:</p> <ul style="list-style-type: none"> • Cracked nipples, • Breast engorgement, • Infected breasts, and • Breast abscess. <p>Generally some routine breast-care procedures are recommended in relation to the above problems. These are:</p> <ul style="list-style-type: none"> • Maintaining hygiene of the breasts and feeding processes, • Increasing flow of milk, • Check for richness of breast milk, • Testing for inverted nipples, and • Managing engorged and painful breasts. <p>Massage breast with natural oil</p> <p>The points to note in breast care and feeding include the following:</p> <ul style="list-style-type: none"> • Keep breasts clean by carefully washing them and the nipples at bath times, before and after each feeding session. • Test for inverted nipples and manage accordingly. • Increase breast milk flow by drinking a lot of water and healthy

			<p>fluids.</p> <ul style="list-style-type: none"> • Check for richness of breast milk. • Express and store breast milk if the need arises. <p>Importance of Breast feeding</p> <ul style="list-style-type: none"> • Breast milk is the best natural food for the human baby and it is easy for digestion. • Breast milk is always clean as long as the mother's nipples are clean. • Breast milk contains antibodies that give health protection to the baby. • Touching and looking at the baby makes both mother and baby feel close. • Sucking after birth and within the first few days initiates milk flow. And if the mother continues consistently, it helps the womb return to its normal position and size. • Each suckling better prepares the breast for the next feeding. • Breast feeding on demand delays ovulation and menstruation. • Breast milk is free and always available, while the mother is breast feeding. <p>How to help and promote milk production</p> <p>Breast milk production has its dimensions of quantity and quality.</p> <p>To increase flow of breast milk the mother should:</p> <ul style="list-style-type: none"> • Be relaxed and free of stress or anxiety • Feed on demand • Drink a lot of water and natural fruit juices; • Drink a lot of hot soya milk or hot herbal tea • Eat fresh and dried fruits; • Eat a lot of vegetables; take more
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			<p>plant-based proteins and moderate amounts of whole grains and other carbohydrate foods.</p> <p>It is important to express and store breast milk when the need arises, e.g., when the mother starts working and has to leave the baby at home.</p> <ul style="list-style-type: none"> • To check for richness of breast milk, the mother should express the milk and look for a film across the top, which indicates the richness. • If the taste of the milk is not sweet, the mother should eat lots of fresh natural fruits. • If the milk is sticky, it may be an indication of: <ul style="list-style-type: none"> ▪ Infection, ▪ The mother not drinking sufficient water/fluids. <p>She can drink garlic and lemon tea for three (3) days to correct this anomaly.</p>
Proper breast feeding positions	Video/film Demonstration and return demonstration	60mins	<ul style="list-style-type: none"> • During the first few days after delivery, breast feeding may be uncomfortable for the mother. • One measure for promoting breast feeding is to ensure proper breast feeding positions. • To prevent problems such as cracked or sore nipples, it is important to hold the baby in different positions that are comfortable for both mother and baby. • Some suggested positions are: <ul style="list-style-type: none"> ○ Mother sitting on a mat with legs crossed and the baby latched to a breast. Change to the other breast when the first is emptied. ○ Mother sitting on a mat with knees flexed and crossed with baby latched to breast. ○ Mother lying on her side

			<p>with baby latched to the breast and facing her.</p> <ul style="list-style-type: none"> ○ Mother sitting in a chair with baby latched to the breast.
Well-baby check-ups (child nutrition, weighing, immunizations)	Plenary discussion Demonstration and return demonstration	50mins	<p>Well-baby check-ups are based on the nature of facilities and out-reach public health activities carried out to reach children under five (5) years of age.</p> <p>Components of this service are:</p> <ul style="list-style-type: none"> ● Monitoring of growth, using age and weight as the standard measures ● Immunizations based on national standards and the schedule ● Detection and treatment of minor ailments, referral and focused health education for individuals and groups. ● As part of education on diet and nutrition, food demonstrations are organized for mother and return demonstration by mothers are encouraged. ● Mother craft and father craft are part of these activities. ● Well-baby check-up visits also offer opportunities for: <ul style="list-style-type: none"> ● Family planning services, ● Education on harmful practices in the community, and ● Updates on health interventions <p>In Ghana, the well-baby check-up visits have been scheduled to last throughout the first five (5) years of the child's life.</p> <p>Monthly visits are done during the first twelve (12) months then quarterly visits occur subsequently.</p>

Session 6 CARE OF THE MOTHER

Terminal Competence

Promoting the health and well-being of the mother

Specific Objectives

1. Explain the importance of recognizing danger signs in women during the postnatal period and how to manage them
2. Describe the benefits of postnatal massage
3. Demonstrate the techniques of postnatal massage
4. Explain the value of good nutrition for lactating mothers
5. Demonstrate the preparation of balanced meals useful for lactating mothers
6. Describe the role of social support groups in the care of lactating mothers

Material resources required

Flip charts, video/film projector, mother support groups, thermometer, BP apparatus, Stethoscope, weighing scale. Food items

Advance Preparation

Review source manual and power point slides, video film. Test LCD projector, assemble teaching material and food items

Duration

3 hours

Session Plan

Topic	Facilitation Approach	Duration	Facilitator's Guide/Comments
Introduction and overview		10mins	<ul style="list-style-type: none">• A woman's body goes through remarkable changes during pregnancy, ending in the physical effort of birth itself.• After birth it is important for the mother to regain her strength and feel

			<p>healthy.</p> <ul style="list-style-type: none"> • This is because there is also an added task of taking care of a newborn. This period of rest is referred to as the post-partum period. • This period covers the first six (6) weeks after delivery. • The first 24 hours are critical because what happens and what does not happen affect the mother's health immediately and later in life. • The changes that occur at this time are emotional and physical. • Mood changes may occur. • The responsibility of caring for a new baby can feel confining and demanding. • There may be changes in the relationships with love ones. However, depending on the individual and the support systems put in place, these feelings fade away. Mothers need the support of partners, family members, friends and the community as a whole. • Support from the health system is critical during this period. • Physical changes that occur include: <ul style="list-style-type: none"> • Loss of weight • Lochia flow may last for a few days (10-14 days) <p>Social Changes that occur include:</p> <ul style="list-style-type: none"> • New relationships may develop • Older children who were not well-oriented to welcome the newborn may behave toward him as a rival for the love and attention of their common mother. <p>Emotional changes that occur include:</p> <ul style="list-style-type: none"> • Anxiety about physical changes • Depression may set in
Post natal vital signs	Q & A Lecturette Video/film	30mins	<p>Post partum life threatening signs in mothers</p> <ul style="list-style-type: none"> • Fainting, fits or convulsions

			<ul style="list-style-type: none"> • Increased bleeding from the vagina with some clots • Fever • Severe pain in the abdomen that keeps increasing • Vomiting • Diarrhea • Foul smell of vagina discharge • Severe pain in the chest (shortness of breath) • Pain, swelling and or redness in the leg or breast • Pain at the site of an incision, possibility of leaking urine or feces from the vagina • Pain when urinating • Paleness in the gums, eyelids, tongue or palms <p>Contacts to be made by a post partum mother:</p> <ul style="list-style-type: none"> • Within the first 24 hours, it is important that a thorough head-to-toe assessment of the woman is done. • This is to ensure that any problems and complications whatsoever are addressed appropriately to reduce illness and death after delivery. <p>Remember to do the following:</p> <ul style="list-style-type: none"> • Check vital signs • Check blood loss and record it for subsequent monitoring • Assess for shock • Examine abdomen for uterine size • Do vulva/vagina examination • Check for pain in the legs • Appropriately refer complicated problems
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			<p>The first post-natal contact occurs within 3 days after delivery. Check vital signs. Do a quick head-to-toe assessment. Specifically, the health provider should look out for the following</p> <ul style="list-style-type: none"> • Mood (depression) • Gait • Cleanliness • Bleeding or more pads soaks within one hour • Perineal tears • Elimination of body wastes • Fever and chills • Pain and tenderness in the abdomen • Bad-smelling fluid from the vagina <p>The second post-natal contact occurs within two (2) to six (6) weeks after delivery. Maternal examination is conducted with focus on the following:</p> <ul style="list-style-type: none"> • Head-to-toe examination • General examination <ul style="list-style-type: none"> ○ Observe gait mood, general cleanliness and behavior ○ Temperature ○ Pulse ○ Weight ○ Conjunctiva for pallor • Examination of specific areas <ul style="list-style-type: none"> ○ Breast (sore/cracked nipples, engorgement, warm and sore breast. ○ Abdomen (palpate for tenderness and involution of uterus and inspect any wound sites) ○ Lower extremities (check for proedema, varicose veins and tenderness in the calves) ○ Perineum and external genitalia.
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			<ul style="list-style-type: none"> ○ Inspect appearance, lochia flow, odor, tears/episiotomy, swellings and any protrusions. ○ Check for hemorrhoids ○ Check for leakage of urine and feces ○ Laboratory Test ○ Blood for Hb level
Post natal massage	Lecturette Demonstration and return demonstration	60mins	<p>Post natal massage</p> <p>After delivery, post-partum exercises can help a woman regain her energy, muscle tone and feeling of well-being. These exercises can be started as soon as a mother is thoroughly recovered from delivery. Done for about 15 to 20 minutes a day, the exercises are passive.</p> <p>Exercises such as the following are suggested:</p> <p><u>Head lifts</u></p> <ul style="list-style-type: none"> ● Lie on the back with arms at sides ● Bend knees with feet flat on floor ● Lift the head ● Repeat lifting the head 5-10 times <p><u>Leg Slides</u></p> <ul style="list-style-type: none"> ● Lie on back with arms at sides ● Bend knees a little with feet flat on floor and bend knees ● Repeat sliding the legs 10-15 times for each leg <p><u>Pelvic Tilts</u></p> <ul style="list-style-type: none"> ● Stand with feet shoulder-width apart and knees slightly bent ● Push hips forward a little, while tightening stomach muscles ● Hold for a count of 5-10 then repeat 5 times <p>Kegel exercise done during antenatal is one of the first exercises that can be done immediately after giving birth (in bed if</p>

			<p>necessary)</p> <p><u>Post-natal massage</u> is a preventive healing system, using the hands and natural oil. It is a form of exercise that uses natural means to regain strength and well-being.</p> <p>This form of exercise promotes emotional and physical well-being.</p> <p>Check pre-natal massage for details. (WHERE? To be found in the Source Manual) Post-natal massage is similar in its effects as pre-natal massage for a mother.</p>
Nutrition and diet of lactating mother	Group and plenary discussion Demonstration and return demonstration	60mins	<p>Nutrition and diet of lactating mothers</p> <p>Nutrition and diet during lactation are critical for both mother and baby.</p> <p>The mother needs to eat well, e.g., lots of fruits and vegetables, whole grains, fresh roots, plant-based proteins and minimal amounts of animal proteins.</p> <p>The diet should favor fresh fruit juices, vegetable juices and boiled/steamed dishes obtained from local sources.</p>
Social support system	Plenary discussion Summary	20mins	<p>Social support system</p> <p>Partners, other family and community members have useful roles to play during pregnancy, child birth and post-partum periods.</p> <p>Six weeks after delivery, both mother and father have to adapt to the new situation and meet the new and challenging demands and needs of the mother, including those linked to breastfeeding. The father is expected to play a vital role, in being understanding towards the mother; supporting and helping with day-to-day tasks. Suitable support from other members of the family and community provide valuable help during this period, to help</p>

			create opportunities for the mother to recover. Father should ensure that the new mother is well fed and both mother and baby receive appropriate medical care. The father should be aware of danger signs for both mother and baby and seek appropriate and immediate care when the need arises.
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MODULE FOUR: TEACHING – LEARNING TECHNIQUES: FACILITATION METHOD

Principles of Adult learning

Adults learn better when:

- they are interested in what they are learning;
- they are motivated to learn because they are interested;
- they are clear about their roles and responsibilities during the learning process;
- the material that they are learning is organized from simple to complex, specific to general, individual to whole;
- They are clear about their roles and responsibilities during the teaching/learning process;
- They see and act what they are learning (i.e. what I hear I forget, what I see I remember and what I do I know).

Facilitators in adult learning situations must emphasize active participation and involvement by the participants. Encourage breaks and warm-ups in between sessions to keep up their interest.

There are several methods used in facilitating adult learning session. Some of the commonly used methods are outlined below.

LECTURE/PRESENTATION METHOD

The purpose of the lecture method is to present basic facts or concepts to a relatively large group of students. It is useful in explaining difficult or complex concepts to students engaged in an activity (such as an experiment) or read a text. The lecture may also be effective after an introductory activity or demonstration has captured the attention of participants and sparked their curiosity. Ideally, the lecture is illustrated with visual aids, a model or a demonstration and includes student participation in some way. Especially with younger participants, the teacher should avoid talking for a long period without actively involving participants.

The teacher should plan the presentation well, to maximize student interest and learning, practice good delivery skills, and use questions and discussion to reinforce the key concepts. Here are some suggestions for more effective presentations.

Preparation

- Outline main points and organize in a logical and orderly way.
- Plan examples and illustrations.
- List key questions or other ways for use to involve participants
- Prepare handouts that assist participants in listening or in taking notes.
- Prepare visual aids.
- Plan timing to allow for questions and discussion.

- Keep presentation as brief as is possible.
- Prepare notes for reference, but not to be read.

The purpose for an introduction

- To outline main points on a board or a flipchart (especially if students/participants are expected to take notes).
- To generate interest from the beginning, use an attention-getter or thought-provoker (picture, question, story, simple puzzle, exercise).

Delivery:

- Maintain eye contact with different participants.
- Vary voice, facial expressions, gestures, and positions
- Use humor and surprise.
- Illustrate main points with concrete examples, analogies, and stories.
- Use non-verbal stimuli and illustrations: pictures, models, props, symbols, and gestures.
- Involve participants by soliciting questions, examples, and responses.
- Use provocative questions and rhetorical questions
- At intervals during a talk, use questions to check on student comprehension.
- Repeat and reinforce key words and main points.
- Use silence and pauses for emphasis and to stimulate thought.
- Try using the direct method by giving false statement or by using faulty reasoning to allow students to furnish corrections (but use this strategy sparingly and keep it at a simple level).

The purpose of a summary & other strategies

- For concluding a presentation, before the attention of participants is lost.
- Repeat main points.
- Or -
- Guide participants to summarize main points.
- Leave some unanswered questions for participants to ponder or discuss.
- Question/answer period and discussion.
- Solicit and respond positively to student's questions.
- Redirect questions for other participants to answer.
- Pose a problem to be solved or questions to answer and use these to structure small-group discussions.

QUESTION AND ANSWER.

Almost any teaching model requires the use of questioning. Questions are powerful teaching tools for stimulating and checking the level of comprehension of students. They also can be used to encourage quiet students to participate, to promote interest in the topic being presented and to spark discussion.

Responses by participants reveal a great deal to the teacher about the level of success of the teaching plan in meeting the objectives of the lecture. In addition, a period of question and answer can actively increase motivation and provide variation from more passive forms of learning, such as listening, reading, and written exercises.

The teacher should have a repertoire of various kinds of questions which can elicit different kinds and levels of thinking. Although there are many ways to categorize questions, as exemplified by the following four major groups:

Direct: Ask for a recall of facts and a description from memory. (Convergent)

Probing: Follow-up questions call for clarification, expansion, justification, or to redirect responses.

Higher Order: Ask for analysis, evaluation, problem solving, comparison, cause and effect or influence.

Divergent: Ask for opinions, judgments, or interpretations.

Mastering the skill of questioning, as with other skills; requires practice. Here are some suggestions for effective questioning:

- Scatter questions widely around the class with alternating response pattern: (individual, row, and whole class, etc)
- Encourage response by giving some positive reinforcement for responses, including those that are incorrect. Use verbal and non-verbal means to show degree of approval (nod, smile, writing answer on board, etc).
- If a student gives an incorrect or incomplete response, restate the question or give a hint and allow him/her to try again.
- Be a good model of listening behavior, by listening attentively to all responses.
- Maintain eye contact during a question-and-answer session.
- Pause after a question, to allow time for thought and response.
- Keep questions short, clear, and focused.
- Base questions on experiences, influences, and other sources in addition to text.
- Use questions that require thought, e.g., by mixing provocative, higher-order questions with factual ones.
- Mix questions requiring objective as well as subjective responses.
- Ask for several responses to open-ended questions.
- If necessary, restate correct responses so that other participants hear them clearly.
- Offer prompts, hints or rephrasing questions, if students have trouble giving good responses.
- Redirect and probe to involve more participants, so as to stimulate learning among the peers.
- Use probing questions to encourage deeper thinking and improve responses.
- Try asking questions for which you do not have the answer.

- In language classes, have the entire class to practice by repeating responses from any one of them. Create model questions and allow students to use them in asking each other.

DISCUSSION

The Dictionary of Education describes discussion as:

An activity in which people talk together in order to share information about a topic or problem or seek possible available evidence or a solution...

Discussion may be implemented in a variety of ways. The types of discussion available to the teacher include (a) Whole-class discussions and (b) Small group discussions (debate, panels, buzz-sessions and forums).

Whole-Class /Plenary Discussion.

This method involves a teacher engaging an entire class in discussing a specific issue. The teacher usually sets this in motion through an informal approach that progressively brings in the entire class into it. As the director of the dialogue, the teacher asks questions, clarifies student comments, and makes tentative summaries to help participants achieve an understanding of the topic.

Small Group Discussion

Breaking up a class into groups immediately multiplies the volume of student activity and participation. The advantages in using small-group discussions are numerous and, though they may require a special management style, group work can be used to the benefit of both student and teacher alike. The teacher then moves from one group to another to monitor the discussions and can occasionally inject questions or statements that can add steam to the dialogue. It is normal for the group to choose a leader or secretary, part of whose duty is to present the group's conclusions later to the entire class.

PURPOSE:

Small groups of approximately two to seven are used to help share ideas and bring individuals together for discussing or solving specific problems. The smaller the group, the greater the chances of maximum participation by each member.

Process.

- One task is assigned to all groups. Where the topics are many, each group can be given a different task.
- The purpose of the task is clearly stated and a time limit is imposed.
- How the group's work is to be presented is clearly defined.
- Members of a group share responsibility for presentation of ideas. To ensure sincere participation by each person, the teacher may warn members that any of them would later be

asked at random to present a summary of the discussion that was undertaken within his or her group. (Refer to Buzz session, discussed below.)

(i) Debate:

Debate is generally used in the classroom as a small-group technique, with a small number of participants forming a team on either side of an issue. Each side is given a specific amount of time to present its “side” of the issue. Members can alternate presentations that are often intensified as either “pro” or “con” with respect to the issue. Rebuttals of specific time duration then follow the presentation. Upon conclusion of the debate, the teacher can enter into a whole-class discussion on the issue.

(ii) Panels:

In utilizing panels, the teacher can divide the class into groups of three to six participants. The participants comprising the panel then organize themselves, research the topic, discuss their data, and then present their findings that lead into a whole-class discussion.

(iii) Buzz Session

In buzz session, participants are placed in small groups for a specific amount of time to discuss a given issue or topic, report of the results of the various buzz groups are then presented to the entire class and stimulate whole-class discussion.

(iv) Forum

The forum is a specific type of discussion in which a small number of participants present information to the larger group. Upon the conclusion of the presentation, the presenters then solicit questions on the topic from the audience. This puts the presenters in the role of “authorities” on the topic and questions may be directed to specific members of the group of “experts”.

General Suggestions for Small Group Interaction.

- If possible, move chairs into small circles (if chairs cannot be moved use the floor, outdoors, squatting or standing).
- Make the tasks very clear before class breaks into groups.
- Teacher can move from group to group as a facilitator.
- The method of using the method of small groups encourages participation through listening, cooperation and helping.
- It is useful to alternate between small-group and whole-class activities.

BRAINSTORMING

Brainstorming is the name sometimes given to general discussion sessions during which people express ideas freely. This is a pity, because true brainstorming is a much more precise technique that has powerful advantages. A true brainstorm is a technique for generating ideas or a variety of solutions to a problem. It has a place in decision-making as it helps to increase the range of factors taken into account in reaching a decision.

It is best used with group of between 5 and 20 participants.

There are four distant stages in the brainstorm, which must be followed in order.

Stages in a Brainstorm.

Stage 1. The Brainstorm itself.

The teacher or group leader (who may be a student) invites suggestions or ideas. He records these on a board or an overhead projector as quickly as possible. All ideas are recorded, regardless of whoever makes them and however silly or inappropriate they may seem. The ideas should be recorded even if they have been suggested previously.

No discussion or clarification of any kind is permitted.

This stage continues until the ideas are exhausted.

The chairman should have some ideas to suggest, when the flow of ideas from the members slows down. This is done to start the flow again.

Stage 2: Review

Each suggestion is reviewed so that:

- (1) It is clear to everyone what the suggestion is (sometimes only a word will be recorded to represent a complex idea).
- (2) A decision is then made to keep the suggestion on the list for future discussion or to throw it out. The aim is not to decide whether the idea is good or not but simply to decide whether it is worth discussing. Repetition of ideas is one reason for throwing out suggestions.

Stage 3: Discussion

The remaining ideas are discussed and a decision is made as to which among the suggestions to accept and to develop the ideas further.

ROLE PLAY

Role-playing is not only a powerful tool for adult education and teacher training. It is also very effective in the classroom. Role-playing is a highly motivating activity, because participants can learn through experience and later apply what they have learnt in a relevant, yet relaxed, low-risk situation. It helps to promote student-student interaction, encourages empathy for others and develops social skills and values. In science and mathematics, abstract and dry concepts can be given personality, humour and life through role plays (interaction of atoms and molecules, variations in geometric forms, etc). Historical figures can bring scientific and mathematical debate to life in the classroom.

GAMES AND SIMULATIONS

Games and simulations have much in common with role-playing in terms of increasing motivation, student participation, and interaction.

Games:

A game is any learning activity that involves rules, competition, winners and losers. The players learn while playing the game, and may use their knowledge in a manner that increases their chances of winning the game. Games can be adapted to reduce competition and encourage cooperation, through rotating teams or changing the objectives. Games are frequently used to enable students to put lessons on language and mathematics into practice, but they can be adapted for any subject.

Simulations

A simulation is a learning activity that is designed to reflect a real situation or system. Simplified simulations can be designed by teachers to help participants understand other cultures, societies, and periods of history.

Games are best suited for introducing a new unit to capture interest or as a final experience to put into perspective whatever has been learnt. Games should be structured to maximize participation and learning. If competition becomes too important losers may lose interest and the learning goals may be lost.

FIELD TRIPS

Field trips help link the real world to the classroom. They show how studies can be applied and bridge the gap between classroom and the community. Appropriate field trips can be planned for any subject. Science classes can conduct observations of nature and collect specimens, while

social studies classes can engage in local community investigations and interviews of its members.

Below are some guidelines for effective planning and implementation of field trips.

- Before planning any field trip, the teacher must first become familiar with the legal aspects of liability that may involve its organizer, e.g., whether there should be insurance cover for any injuries that may occur to participants.
- Make sure the field trip has relevant educational value, in the sense that it relates directly to the lessons to be dealt with within the curriculum.
- As part of planning it, the organizer must first visit the site, discuss the project with the hosts and become thoroughly familiar with the nature of the site, before actually making the decision to undertake the field study.
- Obtain permission from school authorities.
- Organize all transportation arrangements.
- Prepare the class by relating the trip to what is being studied and what they might observe.
- Establish safety, dress and behaviour standards.
- At the site, provide for adequate supervision.
- Be sure all participants are where they are supposed to be.
- Upon return to the classroom, have a review and summary of the lessons that have been learnt during the field trip.
- Have the class send a “thank you” message to the host of the field trip.
- Have a thorough evaluation of participants, their behaviour and the site or project, for lessons to be applied in planning future trips

DEMONSTRATION

Demonstration is the process involving one person showing others how to create or operate something or demonstrate the application of a principle. This method uses various means of communication, such as any of the five physical senses.

Advantages or special purposes:

- Demonstrations add to learning and understanding, by giving participants the opportunity to see and hear what is actually happening.
- Demonstration can be used to illustrate ideas, principles, and concepts for which words are inadequate.
- Good demonstrations hold the attention of learners.
- Demonstration can be cost-effective or cost less, since only the demonstrator needs to use required materials.
- Participants can conduct demonstrations and thereby build associated skills and attitudes.

- Lessons from demonstrations can help reduce hazards that would have happened if, without this prior familiarity, participants began the related experiments or operations with the materials or items involved, as is especially true in science laboratories, shops, or classes on home economics.
- Demonstrations are especially beneficial in the acquisition of skills.
- Demonstrations are an excellent technique in using resource persons from the community which, in turn, is good for public relations.

Guidelines for Maximum Utilization

- Spend the necessary time to plan and develop the needed materials for the demonstration.
- Practice or rehearse the demonstration in its entirety, with an eye to have a very smooth presentation.
- When the time is up to put on the demonstration, make sure that all materials are ready and in good condition to be used effectively.
- Make sure that seating arrangements would enable all the audience can see, hear and, if needed, interact with the demonstrator without any difficulty.
- Pose questions during the demonstration to provide feedback.
- It often helps to discuss and demonstrate both the “wrong” and the “right” way of performing the specific task (e.g., look at what happens when too much water is added while trying to produce this food for the baby).
- At the conclusion of a demonstration, conduct a brief review of the steps involved or a short summary of what has happened.
- If feasible, have a student or two replicate or repeat the demonstration.

Summary

One of the greatest benefits of demonstrations is showing how something is accomplished properly or expertly. Naturally, the demonstration should be properly prepared in advance, so as to ensure that this goal is achieved. While a good demonstration inspires, a poor one distracts and destroys motivation.