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SCOUTING AND NUTRITION



Part 2:

Nutrition Survey & Diagnosis



SCOUTING AND NUTRITION

CONTENTS

There are 3 booklets in this series on nutrition, each one forming a part of a whole.

- PART 1. : UNDERSTANDING NUTRITION
- PART 2. : NUTRITION SURVEY AND DIAGNOSIS
- PART 3. : NUTRITION EDUCATION AND ACTION

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PURPOSE OF THE BOOKLETS

People themselves in any community, with a little training and support, can understand the need for good nutrition and can take action to attain it.

The Scouts - boys, girls and young adults, are part of the people. These are things that they can do themselves, they can influence their families and, through them, their community. We as Scoutleaders, in partnership with health authorities, can help them.

THESE BOOKLETS PROVIDE SCOUT LEADERS WITH :

- an understanding of nutrition and of the problem of malnutrition,
- descriptions of techniques for improving nutrition,
- ideas for action by Scouts.
- . they can help them and their Scouts both to increase their initiative in approaching nutrition problems, and to help their families and the community to plan, organize and implement nutrition projects,
- . they can provide a basis for courses in nutrition for Scouts and leaders.
- . they can provide a tool for a literacy programme based on nutrition.

SCOUTING AND NUTRITION

INTRODUCTION

Food is a basic element for life. Nutrition is the process of utilizing the food we eat to build our bodies and minds and to keep healthy. Good nutrition means both that we have enough food to eat, and that there is an adequate balance in our diet. When the quantity of food is inadequate, we find starvation. When the diet is badly balanced, we find malnutrition. (In this booklet the word 'malnutrition' means both not enough food and unbalanced diet).

Quantity is as, or more, important than balance for someone struggling to survive. Malnutrition may leave a permanent mark on a person's health; it lowers resistance to disease and saps the body's energy; it is the constant companion of dire poverty. It can lead to permanent mental retardation and stunted physical growth.

It is the children who suffer most; 40% of the children in the world suffer from some form of malnutrition; 3 in every 10 children die before they are 5 years old from causes related to malnutrition; 250,000 children go blind each year because of not enough vitamin A. These are facts.

Why is this so? It is generally the result of many interrelated factors both inside and outside the family and community. There may be a shortage of land; agricultural methods may be out of date; floods or droughts may have destroyed the crop; income may be too low, or prices too high...

Another cause of malnutrition is the lack of understanding by the people themselves. Much malnutrition can be cured or prevented through actions taken by the community itself with a little training and support. Scouts can do these things too, for they are also members of that community. They can introduce ideas, initiate action, develop awareness. They can work with the people and with the health and agriculture officers towards a better life for all.

This booklet will give you some ideas. We hope it will motivate you and your Scouts to take action and to be an 'agent for development'.

Scouts should :

- practise good nutrition themselves
- help their own families improve their nutrition
- initiate community education and action

PART 2. NUTRITION SURVEY AND DIAGNOSIS

A. NUTRITION SURVEY

A survey of malnutrition must be undertaken before any action to improve nutrition may be planned. To make such a survey it is necessary to learn how to recognize the signs and symptoms of the different types of malnutrition, and be able to take appropriate measurements.

1. SIGNS AND SYMPTOMS OF MALNUTRITION

(CREDIT: *Manual for Community Health Worker*, published by the Voluntary Health Association of India, New Delhi.)

The early signs and symptoms of malnutrition which we should look for in children are one or more of the following :

1. The child is often sick because of low resistance to infection.
2. He has a dry, scaly or rough skin.
3. He has dry eyes and tends to stumble after dark.
4. He fails to gain weight regularly or loses weight.
5. He has cracks at the corners of the mouth.
6. He has a sore mouth and tongue.
7. He has bleeding from the gums.
8. He has soreness and tenderness of the body.
9. He tires easily and has little energy.
10. He has a pale pink or colourless lower lip.



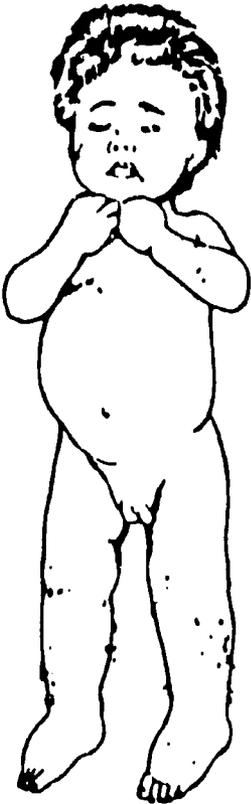
MALNUTRITION: CRACKS AT THE CORNERS OF THE MOUTH

The later signs and symptoms of malnutrition which we should look for in children are one or more of the following :

1. The child is smaller in size and considerably thinner than other children of the same age.
2. He may become easily breathless when playing.
3. He may look miserable and show no interest in people or surroundings.
4. He has hair which is lighter coloured than in others or which is reddish and brittle.
5. He has swelling of the feet and legs and peeling of the skin.
6. He is very thin. He is bony and his skin is wrinkled.
7. He has eyes which no longer shine and the surface of which is rough and dull.
8. He has sores in his eyes.
9. He has bumps on the front portion of the head.
10. He has bowing of the legs.
11. He has bead-shaped lumps along the ribs on either side of the breast-bone.

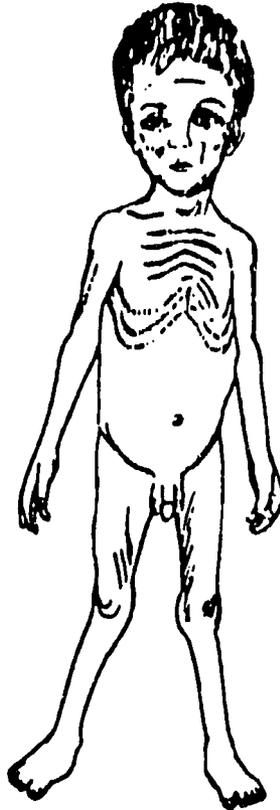
We should also be especially alert to the possibility of finding a malnourished child when the conditions in his family are as follows:

1. The child is one of twins.
2. The child was much smaller than usual at birth.
3. Breast-feeding was stopped before the child was three months old.
4. The child has no living parents.
5. The child belongs to a migrant family.
6. The mother or father has a mental or physical handicap.
7. There are four or more children in the family.
8. The family belongs to the poorest group in the community.
9. The child's brother or sister is less than one year younger.
10. The child is cared for during the day by an older brother or sister without parental supervision.



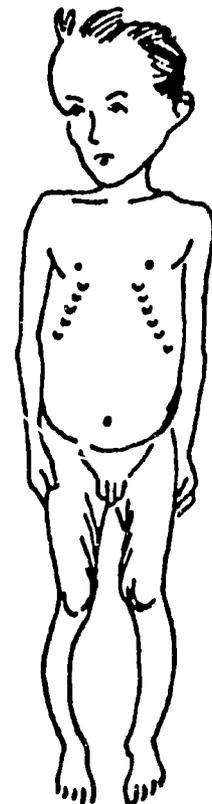
MALNUTRITION:

Swelling and peeling
of skin



MALNUTRITION:

Wasting



MALNUTRITION:

Bone deformities

IT IS IMPORTANT TO IDENTIFY CHILDREN WITH MALNUTRITION AT THE EARLIEST STAGE POSSIBLE, IN ORDER TO BE ABLE TO HEAL THEM MORE EFFECTIVELY.

ANAEMIA

Anaemia may result from malnutrition and we should be able to recognize this condition and do something about it.

WHAT TO DO ABOUT ANAEMIA

- a) Identify cases with signs and symptoms of anaemia in pregnant and nursing women and children and refer them to the Health Worker for treatment.

Anaemia is a condition of the blood resulting from an insufficient amount of iron in the body. In India the most common causes of anaemia are malnutrition, malaria and hookworm infestation. However, in women additional causes of anaemia are frequent pregnancies, repeated abortion and severe bleeding before, during or after delivery. You can identify those who are anaemic in the community in the following ways:

1. Look for mothers, adolescent girls and children who have a pale skin, earlobes, nails, palms or finger tips and who tire easily.
2. Pull down the lower eyelid and note whether the lining is pale.
3. Pull down the lower lip and note whether the lining is pale.

Whenever you find pregnant women, mothers, adolescent girls or young children who have any combination of these signs and symptoms, you should refer them to the Health Worker for treatment. If iron and folic acid are prescribed, assist the Health Worker in distributing the drug.

- b) Assist the Health Worker in administering vitamin A solution as prescribed to children from one to five years of age.

You should assist the Health Worker in the following ways:

1. Find out from the leaders of the village suitable dates six months apart for administering vitamin A solution and inform the Health Worker.
2. Suggest to the Health Worker a central, shady place for holding the clinic so that it is easily accessible to all.
3. Get the community to provide: a table for equipment, mats for seating, adequate supply of drinking water, facilities for washing hands and spoons.
4. Prepare a list of children between the ages of one and five for your village according to the instructions given by the Health Worker.
5. Visit the homes on the day before the date scheduled for the administration of vitamin A solution to remind families where and when to assemble.
6. Greet those who come for vitamin A solution and see that children are given the vitamin A solution according to their turn.
7. Ask the adult accompanying a child who is to be given the vitamin A solution to hold the child in her/his lap with the head raised so that the solution can be placed in the side of the mouth or on the tongue.
8. Assist the Health Worker as required during administration of vitamin A solution.
9. Inform adults accompanying children to the clinic approximately when the next dose of the drug will be administered in the village and tell them that regular six monthly doses are necessary for preventing vitamin A deficiency in children until they are 5 years of age.

2. MEASUREMENTS

a) WEIGHT-FOR-AGE GRAPH

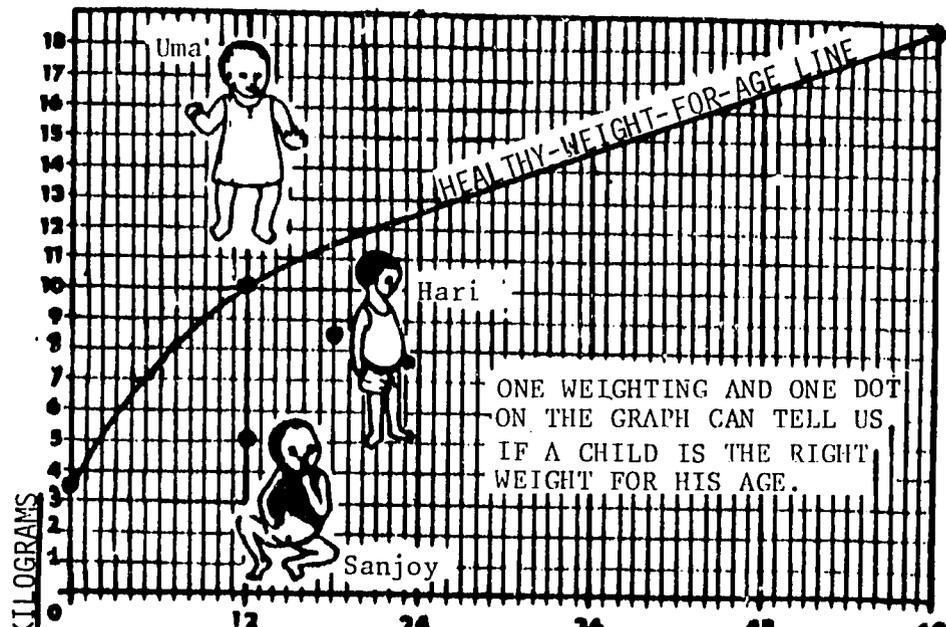
An average healthy child weighs $3\frac{1}{2}$ kg when he is born. His weight after 12 months of life should be 10 kg. - i.e. three times as much. He is growing.

TO GROW PROPERLY AND REACH THE RIGHT WEIGHT FOR HIS AGE, A CHILD MUST BE GIVEN ENOUGH OF THE RIGHT FOOD

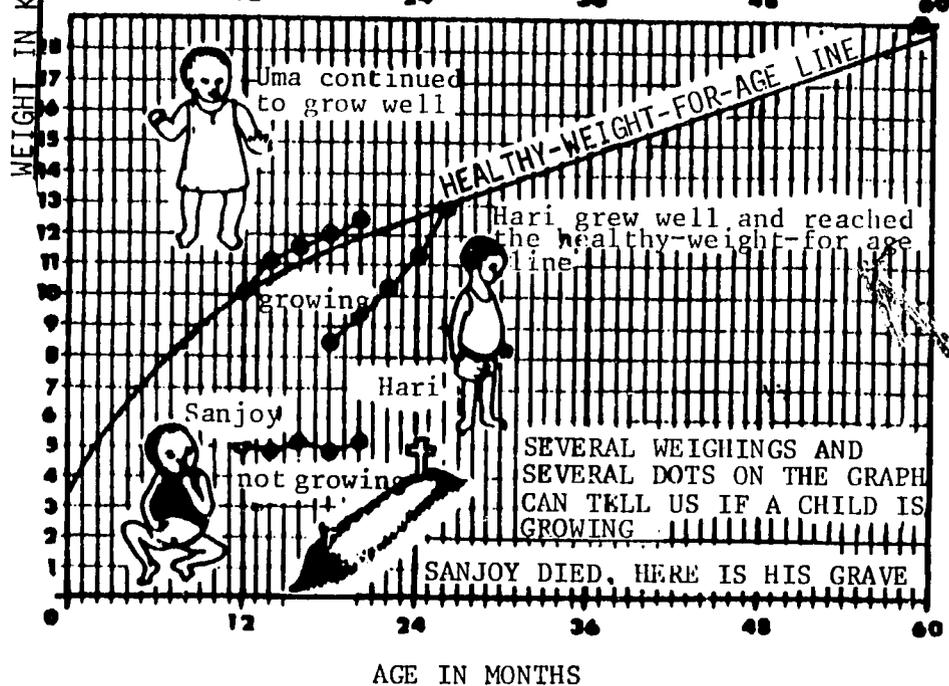
A child who does not get enough of the right food is much lighter than he should be for his age. He is suffering from malnutrition. A badly malnourished child of 12 months may weigh only 5 kg.

WEIGHT-FOR-AGE GRAPH - (for the average healthy child)

WEIGHT-FOR-AGE
AT ONE MOMENT



WEIGHT-FOR-AGE
DURING SEVERAL
MONTHS



The graph shows that children grow more quickly in the first year of their life, and more slowly after that.

A graph like this is very useful, because:

- we can easily find what the weight of a healthy child should be at any age between birth and five years;
- we can also see if he is growing as he should.

BY MEASURING WEIGHT AND GROWTH WE ARE MEASURING HEALTH

Scouts can help in small clinics or make patrols with other workers to take the measurements of children under five. In this way they can set up a health records system for the children in the area. This will be a basis for diagnosing and preventing malnutrition.

Wherever possible Scouts should fit into the existing service, otherwise important questions like: who organizes the community? who starts, pays for and maintains the service? will have to be seriously considered.

b) ROAD-TO-HEALTH CHART

*EACH CHILD HAS HIS OWN "WEIGHT-FOR-AGE" GRAPH ON A CARD.
IT IS IMPORTANT FOR THE MOTHER TO UNDERSTAND THIS GRAPH.*

This card is called a Road-to-Health Chart. It is kept by his mother. It is marked every time she comes to the clinic. (see page 8)

Sometimes it is difficult to find out the child's age. You should make a "calendar of local events" with which you can work out, with the mother, the child's age more easily. This can include the farming seasons, shows, elections, etc.

The child's birthday is marked in the thick-lined box on the left of each year at the bottom of the chart, and the other months filled in accordingly. Whenever a child comes to a clinic, he is weighed and a dot for his weight is put opposite the box for the month in which the clinic was visited. When we join up the dots representing the child's weight over several months we have a line. This line represents his growth. Records of immunization and other relevant data may be written on the back (e.g. birthdays of all brothers and sisters).

Ask the local health department what kind of Road-to-Health charts they use and how they fill it in.

Each Age-for-Weight Graph should have two other lines already marked on it.

1. The line representing the growth of an average healthy child.
2. A lower line representing the growth of a malnourished child.

If the child's "age-for-weight" dots follow the first line, there is no cause for worry.

ROAD-TO-HEALTH CHART

Name:.....

Birth weight:..... kgs

Where the family lives.....

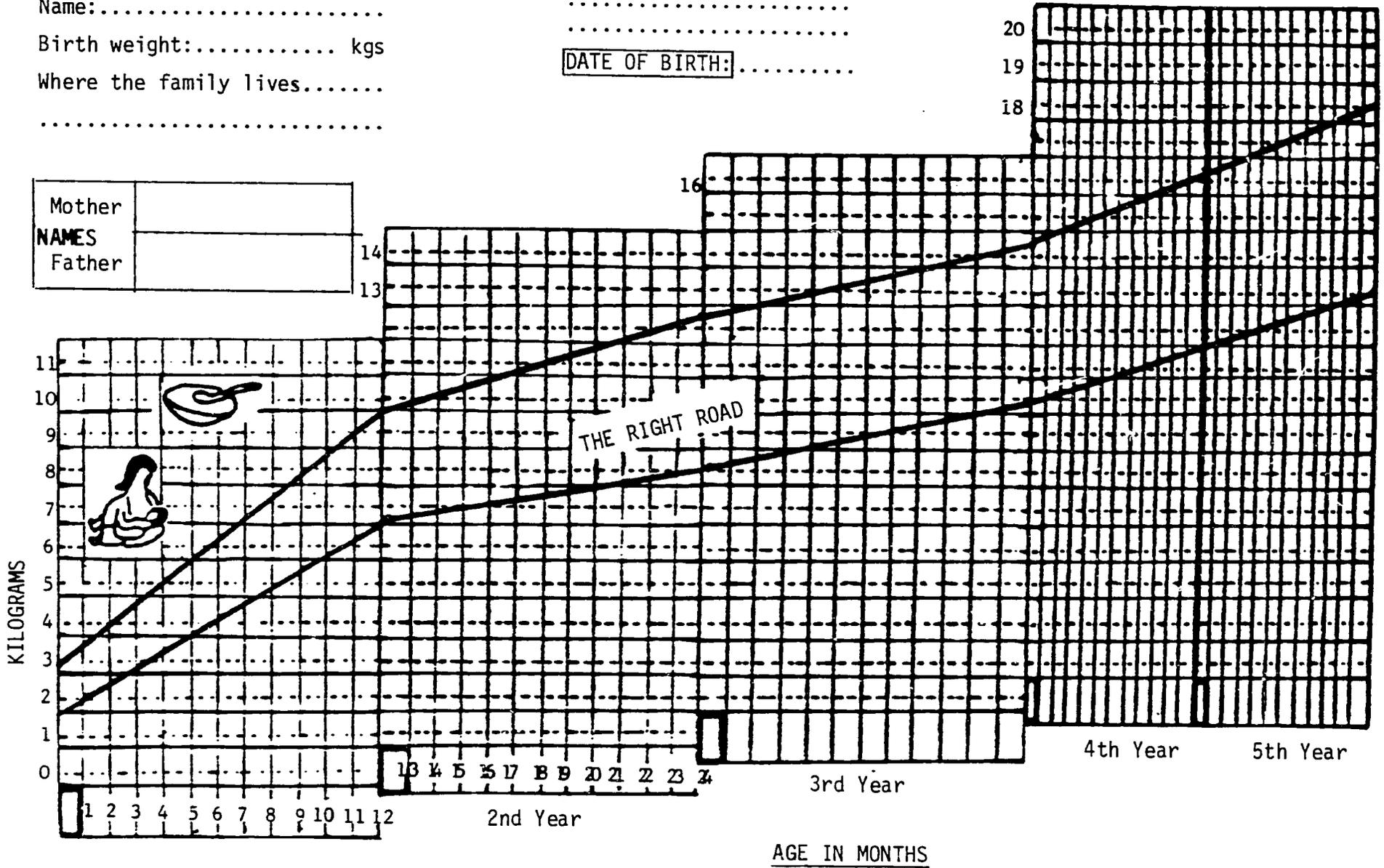
.....

REASONS FOR SPECIAL CARE

.....

DATE OF BIRTH:.....

Mother	
FATHER NAMES	
Father	

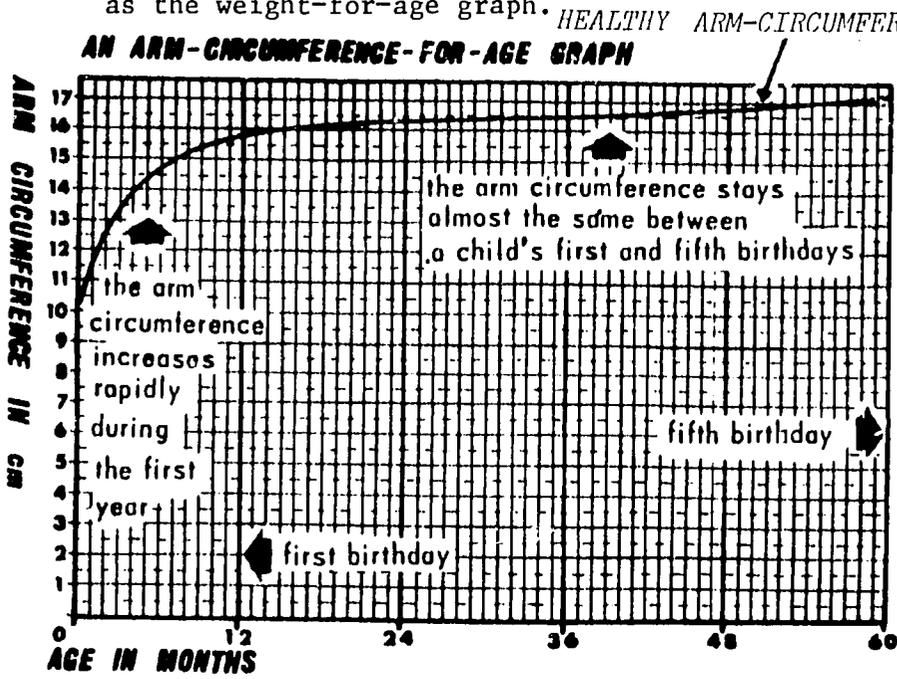


If the dots come close to the lower line, we then know he is malnourished and is not properly fed. The causes of a dip in the dots should be discovered and analyzed, so that correct action can be taken. Then we shall see his dots climbing again to the first line. He is then growing again.

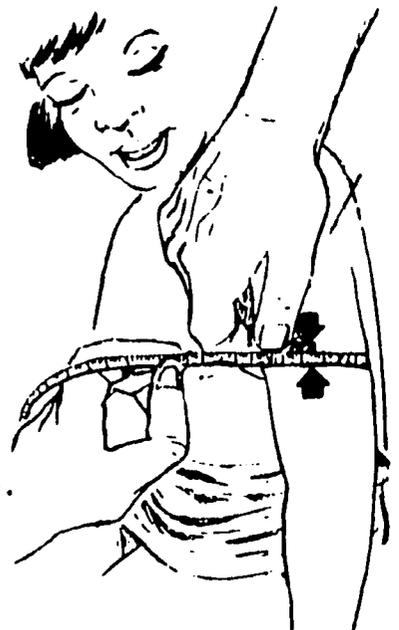
c) ARM-CIRCUMFERENCE-FOR-AGE GRAPH

Another way of measuring nutrition is by measuring the circumference of the middle of the child's upper arm, with a tape measure or thin cardboard strip marked in centimetres. The upper arm of a malnourished child is always thinner than that of a healthy child.

There is also a graph which shows the relationship between the arm-circumference and the child's age. You can use this graph in the same way as the weight-for-age graph.



IT IS USEFUL TO REMEMBER THAT A CHILD BETWEEN THE AGES OF ONE AND FIVE YEARS IS MALNOURISHED IF HIS ARM CIRCUMFERENCE IS LESS THAN 14 CM.



To measure an arm-circumference, you should:

1. Put the tape gently but firmly around the arm.
2. Always measure the left arm half way between the shoulder and the elbow.
3. Let the left arm hang freely by the child's side.
4. The arm must be straight and not bent at the elbow.

EXAMPLE

Arm circumference in cm.	No. of children	
16 - 17		23
15 - 16		32
14 - 15		21
13 - 14		15
12 - 13		8
11 - 12		1
	100	

A tally for the arm circumference of 100 children between 1 & 5 years in a village

WHETHER A CHILD IS GROWING OR NOT IS MORE IMPORTANT THAN WHAT WEIGHT HE IS.

3. COMMUNITY NUTRITION SURVEY

We have seen the various signs and symptoms of malnutrition and have learnt some techniques for taking appropriate measurements.

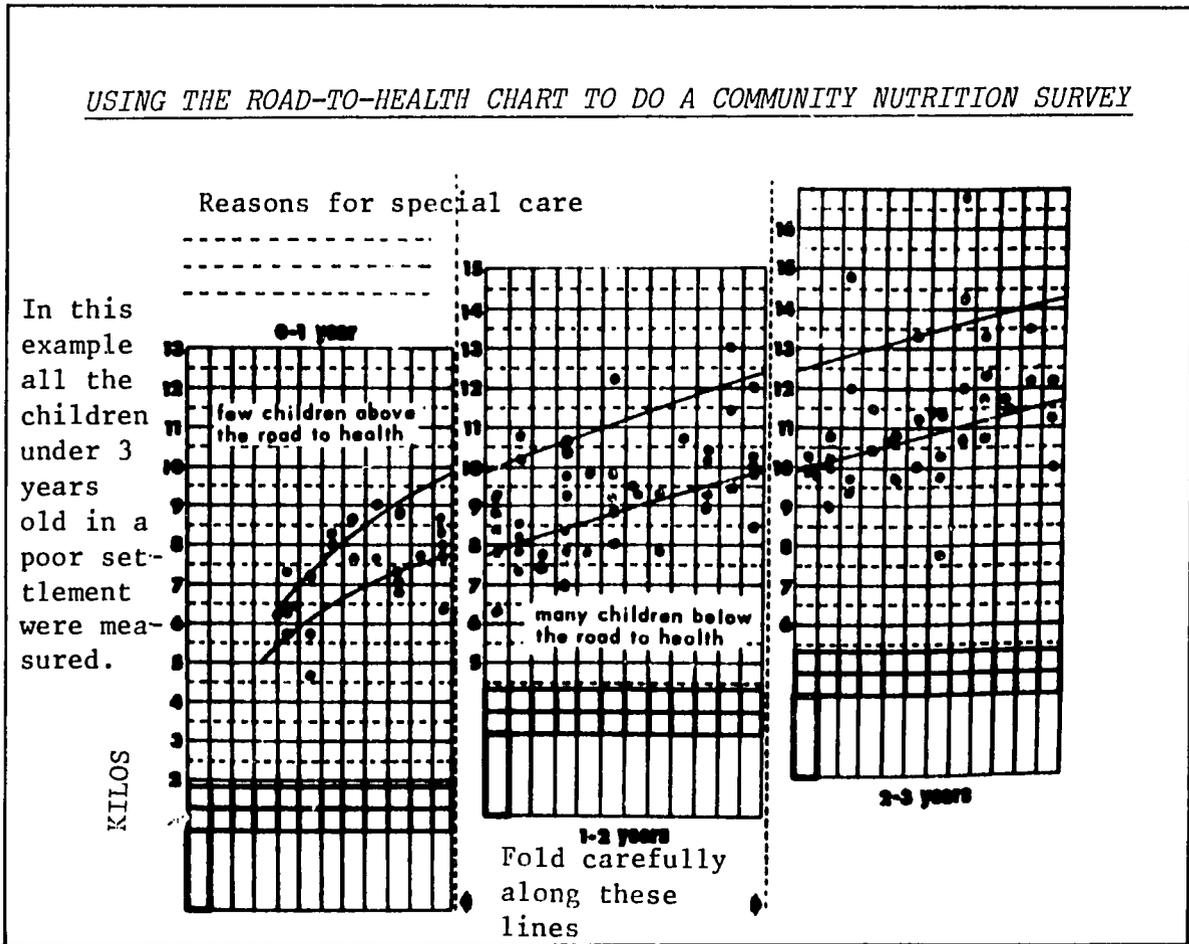
In order to assess the amount of malnutrition in a community, a Scout patrol should first of all discuss with the people the question of nutrition and the possibilities of improving it.

Then, with the understanding and support of the people, they should make a note of the signs and symptoms of malnutrition among all the children under 5 years old in the community.

They should then take measurements of the weights or arm circumferences of a representative sample of these children and put all the dots on one Road-to-Health Chart. If the dots, which represent the weight or arm-circumference of each child, fall around the top (healthy) line on the graph, we know the village or settlement is well-nourished.

If many of them fall near the lower (malnourished) line, we know that there is malnutrition in the area and action must be taken.

THE WAY WE MAKE THE SURVEY SHOULD BE ADAPTED TO LOCAL CUSTOMS



B. NUTRITION DIAGNOSIS

1. COMMUNITY DIAGNOSIS OF MALNUTRITION

We have now learnt how to recognize malnutrition in a community. To be eliminated, its causes must be understood. We can do this by making a community diagnosis of malnutrition

We can make a community diagnosis from:

- our own knowledge of the area (e.g. lack of rain, etc.);
- visiting families in their homes;
- asking the doctor, medical assistant, agricultural officer, nurse, midwife, health visitor, etc.;
- making a nutrition survey.

*PEOPLE DO NOT LIKE TO BE STUDIED.
THE APPROACH MUST BE VERY CAREFULLY EXPLAINED*

a) VISITING A VILLAGE/SETTLEMENT

We should:

1. Visit the head of the village/settlement and discuss these things with him/her,
2. Choose the families to visit. If we cannot visit all families, make sure each house has an equal chance of being chosen (e.g. every fifth house).
3. Observe what people do that has anything to do with the food-path (e.g. state of gardens, what they eat, etc.).
Make notes.
4. Talk to people and ask questions (interview). List the questions we want to ask and the answers people give. Make a conversation of it. Make sure we get accurate answers, and not just the answers the people want you to have.



HAS THE FAMILY GOT A GARDEN?

We may be able to make several visits to these families.

*THE BEST WAY OF INFLUENCING PEOPLE
IS BY USING YOUR EARS. LISTEN TO THEM.*

b) QUESTIONING A FAMILY

We should:

1. Introduce ourselves to the family. Make people feel we have come to learn, not criticize.
2. Find out the names of the members of the family, what jobs they do, etc.
3. Ask general questions about food - where it comes from, how they cook it, etc.
4. Ask questions about the children - how many, how old, what diseases, feeding habits, etc. Try to see the children eating.
5. Learn about some important customs - e.g. breastfeeding habits, grandmother's role, etc. But remember not to be too personal with people we do not know.
6. Learn about the cooking, fuel and water.
7. Learn about how they buy the food (in town) and how they grow the food (in the village).
8. Find out what the family think they need.
9. Give the family a chance to ask questions.

*THANK THE PEOPLE WHO ANSWER OUR QUESTIONS
LEARN FROM FAMILIES BEFORE WE TRY TO TEACH THEM*

c) QUESTIONING THE HEALTH/AGRICULTURE DEPARTMENT OFFICERS

These can include such questions as:

- How many children died partly or wholly as a result of malnutrition last year?
- What are the major diseases in the area that cause or contribute to malnutrition?
- Are people growing the right crops?
- Are the fields and gardens being dug and planted in the right way?

And many others.

WE SHOULD SIT DOWN WITH OUR SCOUTS, AND WITH AN OFFICER FROM THE HEALTH/AGRICULTURE DEPARTMENTS, AND PLAN THE QUESTIONS WE WILL ASK THE FAMILIES AND THE DEPARTMENTS.

d) MAKING THE COMMUNITY DIAGNOSIS OF MALNUTRITION

Scouts can make a diagnosis of malnutrition in a community by analyzing the blocks on the food-path (see Part I). Some blocks are easy to measure (like how many families use feeding bottles). For more difficult things, (like how bad the roads are), one a "one-to-five" scale, for example:

- a block of no importance 0
- a block of average importance 3
- a block so important that it is
the only one that matters 5

We can therefore make a list of all the blocks on the food-path in a particular community, and against each put the number (using the "one-to-five" scale) measuring its importance (see Chart p.14).

This diagnosis gives us an understanding of why there is malnutrition in a community. We can also see which blocks should be considered priority in any future nutrition programmes.

2. NUTRITION EDUCATION DIAGNOSIS

Many blocks on the food path could be removed by changing people's behaviour. The Education Diagnosis is the list of these blocks which could be removed in this way. This might be done by Health Education. It includes a measure of how easy or difficult the removal of each block might be.

The behaviour that needs to be changed might well be that of the decision-makers as well as that of the malnourished people themselves.

We should go through your list of blocks on the food path (Community Diagnosis of Malnutrition - see chart on p. 14). Add a column marked "Removal possible by health education"; go through each block and put a "✓" opposite it if we think that health education might help to remove it; put an "X" if we do not think so.

Add a third column and put "easy", "difficult" or "very difficult" (E/D/VD) according to how we judge its removal.

After the Nutrition Survey and the Malnutrition and Education Diagnosis of one or more villages or settlements have been made, we should discuss the results with each other and with the health/agriculture officer. Then we can plan together with the people what action can be taken to improve the nutrition in these areas. (See Part 3 for a Nutrition Education Programme)

REMEMBER:

<u>NUTRITION SURVEY</u> :	<i>shows the level of nutrition in the community.</i>
<u>DIAGNOSIS OF MALNUTRITION</u> :	<i>finds out the causes of malnutrition in the community.</i>
<u>NUTRITION EDUCATION DIAGNOSIS</u> :	<i>finds out what nutrition-related behavior can be changed by education.</i>

IMPROVING NUTRITION IS NOT EASY. REMEDIES TAKE TIME

THIS CHART INCLUDES THE RESULTS OF THE SURVEY AND DIAGNOSIS.

DIAGNOSIS OF MALNUTRITION

(example)

Place _____ Date _____

THERE IS THIS MUCH MALNUTRITION IN THE COMMUNITY _____ % of children in the district are below the road to health.

_____ % of one-to five-year-old children have an arm circumference of less than 14 cm.

_____ children died of malnutrition in the hospital last year.

KWASHIORKOR is not seen/uncommon/quite common/very common.

There were _____ cases of kwashiorkor in the hospital or health centre last year.

MARASMUS is not seen/uncommon/quite common/very common.

There were _____ cases of marasmus in the hospital or health centre last year.

You may not be able to get figures of the different kinds of malnutrition, and it may be necessary to put them all together as 'malnourished children'.

	The importance of the block	Removal possible by health education	Removal by health education easy or difficult
	(0 - 5)	(✓/✗)	(E/D/VD)
<u>Block in the food-path</u>			
People too sick to work hard	_____	_____	_____
Too many people and not enough land	_____	_____	_____
Men not working enough in the fields	_____	_____	_____
Not enough land cleared for planting	_____	_____	_____
Soil erosion	_____	_____	_____
The wrong crops grown	_____	_____	_____
The wrong varieties of crops grown	_____	_____	_____
Fields dug and planted in the wrong way	_____	_____	_____
Fertilizer not used	_____	_____	_____
Insecticide not used	_____	_____	_____
Not enough men in the villages to work	_____	_____	_____
Drought	_____	_____	_____
Plant and animal diseases	_____	_____	_____
Other kinds of farming which could be done better	_____	_____	_____

con't
next
page

<u>con't</u>	The importance of the block	Removal possible by health education	Removal by health education easy or difficult
<u>Block in the food-path</u>			
Insects spoiling the food stores	_____	_____	_____
Rats and mice spoiling the food stores	_____	_____	_____
Not enough roads	_____	_____	_____
Not enough transport	_____	_____	_____
Not enough markets	_____	_____	_____
Too large profits by wholesalers and retailers	_____	_____	_____
Bad budgeting	_____	_____	_____
Wasteful shopping	_____	_____	_____
Bottle-feeding	_____	_____	_____
Advertising the wrong food and drink	_____	_____	_____
Lack of fuel	_____	_____	_____
Broken families	_____	_____	_____
Families too large for one wage earner to feed	_____	_____	_____
Birth interval commonly too short	_____	_____	_____
Not enough jobs	_____	_____	_____
Unfair shares of food	_____	_____	_____
Mothers not knowing the best ways of feeding their young children	_____	_____	_____
Customs block the food- path in these ways	_____	_____	_____
Alcohol blocks the food- path in these ways	_____	_____	_____
These diseases are seen that make malnutrition worse	_____	_____	_____
The food-path is blocked in these other ways	_____	_____	_____

It may help you to complete the community diagnosis of malnutrition in your district if you make a list of what you think are the most important blocks in the food-path.

"THE COMMUNITY DEVELOPMENT SERIES"

The "Community Development Series" is the title of the set of dossiers on Community Development being produced by the World Scout Bureau.

Each dossier contains materials (booklets, wall-charts, etc.) that :

- discuss the subject,
- suggest techniques and activities for Scout troops,
- provide exercises for training sessions for Scout leaders.

These dossiers are written for Scout leaders, to be used as :

- basic material in training courses, seminars and workshops,
- a manual for community development activities,
- a model for adaptation and translation into other languages.

THIS SET OF DOSSIERS INCLUDES:

1. Scouting and Community Development
2. Project Management
3. Scouting and Agriculture
4. Scouting and Health
5. Scouting and Literacy
6. Scouting and Appropriate Technology (joint production
with UNICEF)

(Some of these dossiers are already available, others shall become available in the course of this year.)

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