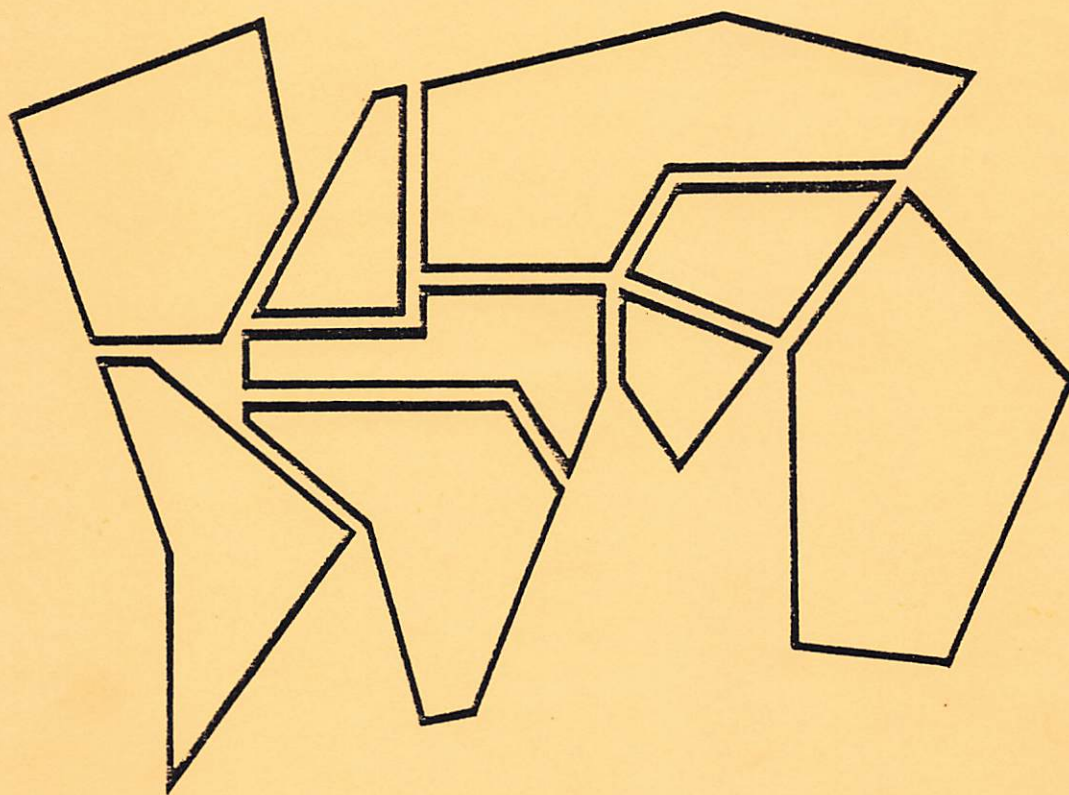


# GUIDEBOOK FOR THE RENEWAL OF VILLAGE VITALITY



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4750 North Sheridan Rd. Chicago, Ill. 60640, Phone 312/769-5635 Cable ICACHI

This guidebook contains five major sections. They are listed below. The page immediately following this one is a project phasing chart. It shows the steps of developing each of the five parts of the local health system. In the Guidebook at the beginning of each section is a similar chart which shows the phasing of a step by step development plan for that part of the local health structures

#### CONTENTS

1. NUTRITION	PAGE 1.1 - 1.47
2. SANITATION	PAGE 2.1 - 2.43
3. VITALITY MAINTENANCE SYSTEM	PAGE 3.1 - 3.55
4. FUNDING	PAGE 4.1 - 4.26
5. HEALTH EDUCATION	PAGE 5.1 - 5.79

## PREFACE

This manual was created by the Health Care Task Force of the Institute of Cultural Affairs during the 1977 Global Research Assembly. This is the third edition; in its current form the manual has undergone a marked transformation from an academic theoretical compendium to a practical "how to" book. Reflecting this change the title has now been changed to the Guidebook for the Renewal of Village Vitality.

The guidelines and models presented here were generated out of field work in several of the ICA's 24 Human Development Projects. They are intended to be useful within the comprehensive development effort which these projects represent. The authors presume that simultaneous to developing a local health care system the communities for which this is written will also be engaged in developing local commerce, agriculture and educational structures. Our experience does not allow us to predict the success the plans presented if they are implemented outside the context of a total Human Development Project.

The methods applied to development of local health structures described in the Guidebook are methods which could be applied to any aspect of community life, (for example - local commerce), and significantly promote rapid establishment of adequate local structures. The reality of the previous statement points to what is perhaps the major original contribution that this guidebook makes to the field of rural health which is the application of "imaginal education" and community participation methods to health services development.

The text is organized into sections reflecting the five major components of a local village health care system: Sanitation, Nutrition, Local Systems, Funding, and Health Education. Each section provides practical step-by-step guidelines which will allow for effective actuation of a self-sustaining local health care system. The emphases are community involvement and prevention. The style of language used is that appropriate for use by those with only basic English language skills. Not only does the guidebook provide a screen for an effective acceleration visit at any point in the life of a project, but if followed closely will allow a person with no formal health education to implement a showpiece quality local health system with or without the visit of an acceleration team.

Our aim has been to translate highly technical knowledge and skills into appropriate forms for use in the globe's rural villages. For example, rather than burden a local health worker with the complexity of weight/age determination of individual calorie and protein requirements we have assigned average values to the major 5 food groups. Although not meeting the requirements of rigorous academic analysis, this allows for ready analysis which points planning on the local level in the right direction. In constructing the nutritional survey we were interested in a format which would determine the extent of overall community need; therefore we presumed an average calorie requirement of 3000 calories and protein requirement of 50 gms per person-man, woman, child. These two examples are indicative of the kind of "translation" work which the task force has done in all arenas of the guidebook; keeping in mind before us always the demand of creating a tool which local man can use.

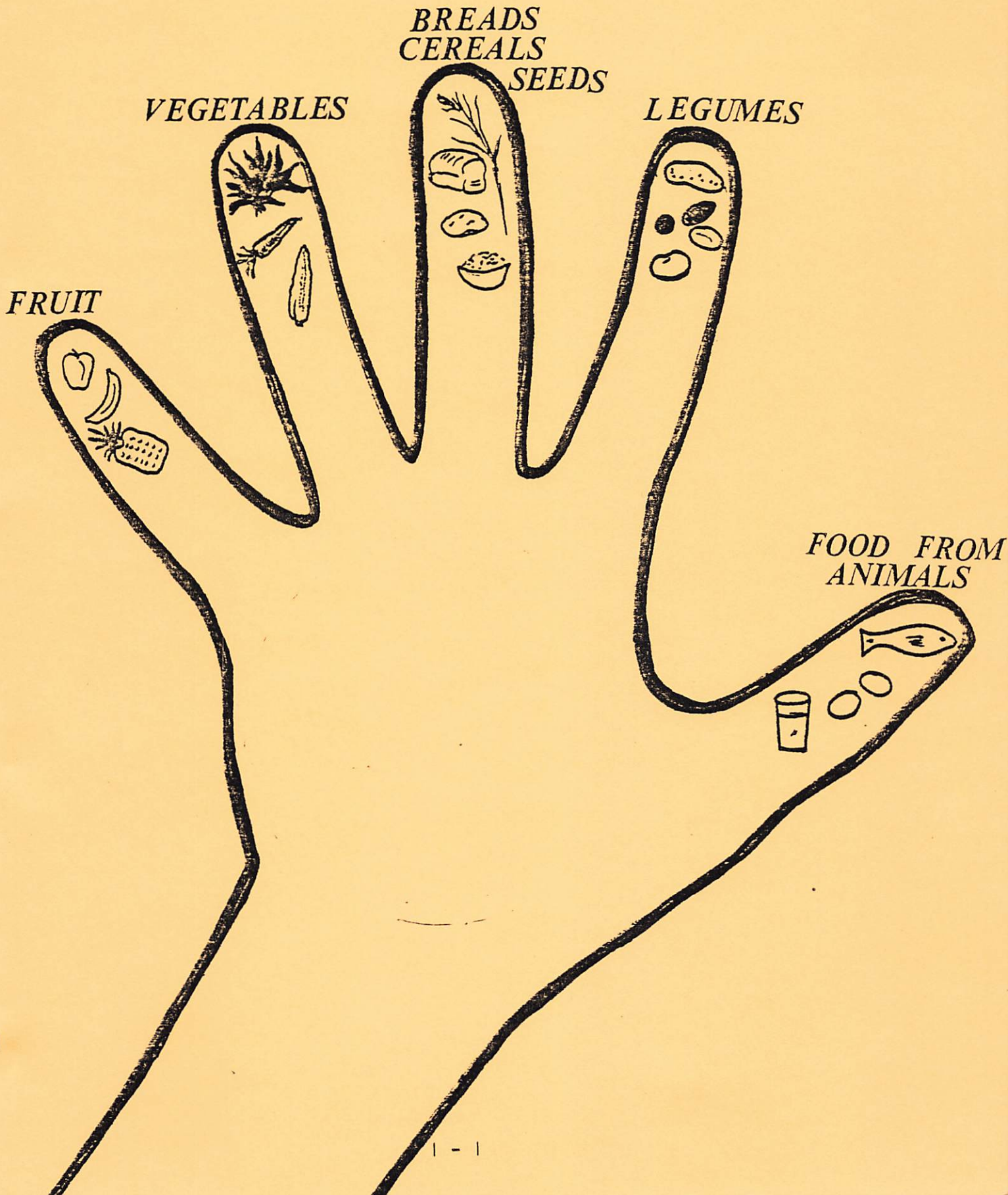


## Preface (cont'd)

This is a working tool. It is hoped that those using it during the coming year will keep note of suggestions for further modification to make it more effective. These comments should be transmitted to the Global Health Teams c/o Social Demonstration Post, ICA, 4750 N. Sheridan Road, Chicago, Illinois 60640 USA.

It is our hope and expectation that the use of the Guidebook in the context of the Human Development Projects will significantly contribute to the recreation of the health care structures of the globe and release among the local man accross the globe a new vitality to create new human community.

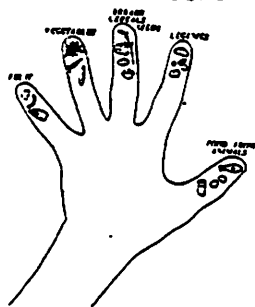
# 5 FOOD GROUPS





This chapter was written by a task force of the Global Research Assembly of the Institute of Cultural Affairs in Chicago, July 1977. It was first published by the ICA in August 1977. We have freely drawn on the experience from many people working in the field, and intend that this material would be available to persons working in local communities around the globe.

## 5 FOOD GROUPS



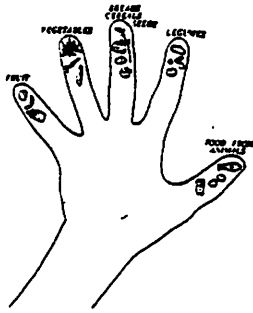
## INTRODUCTION

Adequate nutrition is a cornerstone of community vitality. If people don't have enough to eat not only will they lack the energy to fully engage in renewing their community, but they will also get many kinds of infections and other diseases that they would not get if they were getting enough food. This section of the Guidebook shows how to know what the situation of your community's nutrition is and gives some practical ways to deal with the situation.

1. Context Page 1.5
2. What we need to know about food Page 1.7-1.13
  - 5 Food Groups
  - Fruit
  - Vegetables
  - Legumes
  - Grain
  - Animal Food
3. Another way to talk about value from food Page 1.14-1.23
  - Energy Food
  - Building Food
  - Protective Food
  - Baby Feeding
4. An adequate food program for the village Page 1.24-1.46
  - Journey Chart
  - What Is Enough. Energy?
  - Helpful Facts About Food
  - Nutrition Survey
  - Community Garden
  - Community Kitchen
  - Kitchen Sanitation
  - Food Storage
  - Refridgerator Design
  - Pre-school Feeding
  - Wheat Soy Blend
  - Food Value Tables
5. Bibliography Page 1.47



## 5 FOOD GROUPS



### CONTEXT

This section is about good nutrition. Most medical historians now agree that the disappearance of plagues such as Bubonic, cholera, typhoid, typhus, T.B., small pox and cholera in Europe and North America during the 1800's was primarily the effect of the achievement of an adequate food supply. In much of Africa today, such "mild" diseases as measles kill as many as half of the infected children - primarily because these children are undernourished and lack normal resistance.

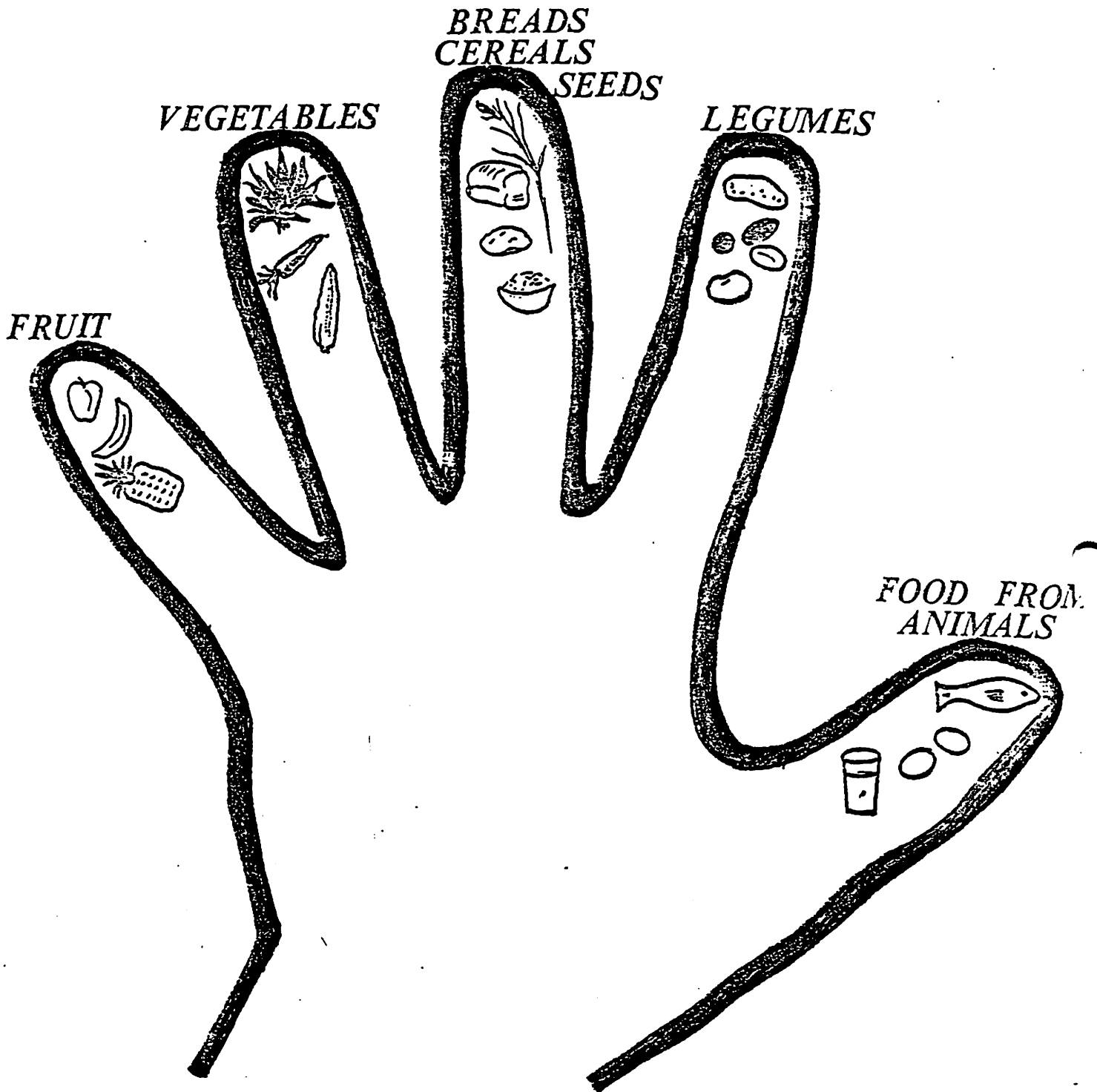
In the first section of this chapter a method is provided to look at nutritional requirements for an entire village and at the same time provide teaching images needed to provide this perspective to the people of the village.

The later portion of this chapter makes practical suggestions for how an adequate food program can be quickly enabled for the entire village. The concern of this section is first how to get rapid increase in vitality and productivity by making rapid improvements in diet, and secondly how to get such improved food practices to become the basis of food habits for the community at large.

### FIVE OVERALL ASSUMPTIONS OF THIS CHAPTER

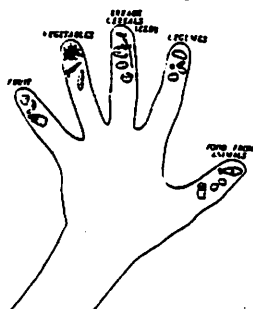
1. The village can and will have enough of the right foods to keep people healthy.
2. The present village diet will be improve, not replaced.
3. Local resources will be used.
4. The growth, care and distribution of foods will be guided by community consensus.
5. Local people will be trained to manage the nutrition program.

# WHAT WE NEED TO KNOW ABOUT FOOD

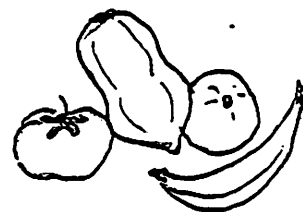


EVERYONE MUST EAT SOME FOOD FROM EACH  
OF THE FIVE FOOD GROUPS EVERY DAY.

# 5 FOOD GROUPS



## 1. FRUIT GROUP



You may know the fruit group as the flesh that grows around seeds. Some examples of fruits are tomatoes, bananas, squash, oranges, and pawpaw.

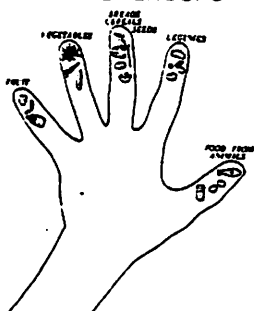
Most fruits provide minerals and vitamins and some provide a lot of energy. There are many different vitamins and minerals, and we require small amounts of them all, so it is the best plan to share several different kinds of fruit in the family each day.

On this page list the fruits common in your area and write the time of year they are harvested and the cost during that time.

FOOD	TIME OF YEAR	COSTS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Eat Some Fruit At Every Meal  
( a little bit will do)

## 5 FOOD GROUPS



## 2. VEGETABLE GROUP



Leaves, roots, stems, and buds of plants are all part of the vegetable group. Some vegetables are potatoes, spinach, and carrots.

The vegetable group has even more vitamins and minerals than the fruits. People who don't eat enough vitamins might have problems such as coarse or dry hair; red rough skin; skin that bruises very easily; sore crusty eyelids; gums that are red and swollen; or even night blindness.

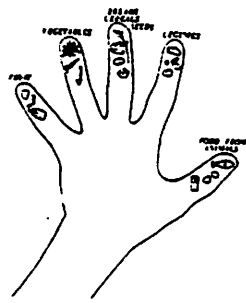
For example, vitamin A prevents night blindness. It is found in dark leafy vegetables such as Casava leaves or Papaya leaves. What are some vegetables in your area that are dark and leafy? What time of year are they available?

FOOD	TIME OF YEAR	COSTS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Eat Some Vegetable At Every Meal  
(a little bit will do)



## 5 FOOD GROUPS



### 3. BREAD, CEREAL, AND SEED GROUP



All foods that have seeds that grow exposed are the bread, cereal and seed group. Some foods in this group are rice, wheat, and corn, and foods that are made from the flour of these seeds.

This group of foods is mostly an energy group and supplies some vitamins and minerals, but only if you eat the whole grain. That means rice that has been left brown, wheat that is ground whole or eaten as cracked wheat, and corn that is ground whole. This group can also have body building qualities when eaten with foods in the legume group, (rice and dahl, wheat bread made with soy flour).

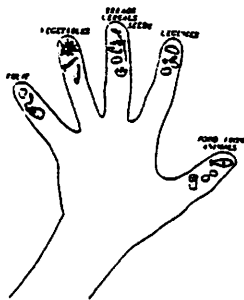
Someone who doesn't eat enough of this group of foods may feel a lack of energy, or their tongue may become swollen.

What are some foods in this group available here?

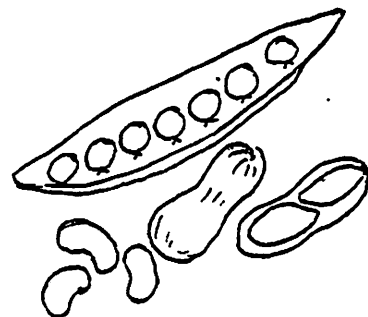
FOOD	COSTS	FOODS IN LEGUME GROUP THAT MIGHT BE USED WITH THIS GROUP
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

Grains Are Usually The Cheapest Source Of  
Energy - They Must Be Eaten At Every Meal

### 3 FOOD GROUPS



### 4. LEGUME GROUP



Foods that are seeds grown in pods are foods in the legume group. Some legumes are peanuts, beans and peas.

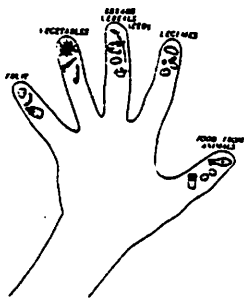
This group of foods, when eaten with foods from the seed group, makes good body building foods, and the combination is especially important where very little food from animals is eaten. People who don't eat enough of this group of foods may experience tiredness or lack of energy.

List some common legumes or beans available to you.

FOODS	COSTS	FOODS IN THE SEED GROUP THAT MIGHT BE USED WITH THESE LEGUMES
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

One Measure of Legume for Every Three Measures Of Grain Is A Good Combination And Should Be Eaten At Every Meal.

## 5 FOOD GROUPS



### 5. FOOD FROM ANIMALS



All foods that come from animals are animal foods. Some animal foods are cheese, milk, eggs, chickens, and fish.

Animal foods are body building foods, but when you don't eat enough energy foods, body building foods will be used for energy instead. This group gives iron and some vitamins. Body building foods are needed for growth and helping the body fight infections. Someone who doesn't eat much food from animals can get body building foods by eating legumes with seeds, cereals, and breads.

What are the foods from animals available to you?

animals and fish  
available to you

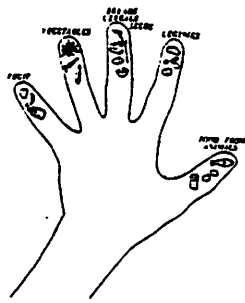
possible  
food

cost to you

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

You Don't Need Much, But Some Food From  
Animals Should Be Eaten At Every Meal.

## 5 FOOD GROUPS

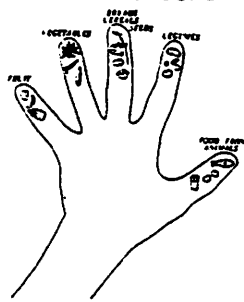


Using the five fingers of a hand makes it easy to remember the five food groups. It is easy for mothers to plan something from each food group to every meal. If mothers do so, their families will have better vitality and will be less likely to become ill.

Eating some of each food group at every meal will insure that a person has enough of the energy foods, building foods, and protective foods that he needs.



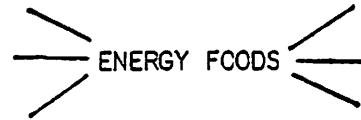
## 5 FOOD GROUPS



## ANOTHER WAY TO TALK ABOUT

## VALUE FROM FOOD

The five food groups contain energy foods, body building foods, and protection food.



Energy foods help us to move about and perform work. Energy is measured in calories or energy units. Some people need more calories (energy units).



Young children need calories (energy units) to grow and play. As a person grows old he doesn't need as many calories (energy units).



People who do hard work like digging in a field need more calories (energy units) than people who sit most of the time.



People who live in cold places need more calories (energy units) to keep warm than people who live in warm places.



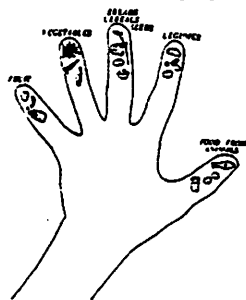
Pregnant Women need extra calories (energy units) to build the new cells (building blocks) that make up the new baby. She is also growing in size and needs more calories (energy units) for movement and work.



Nursing women need more calories (energy units) to help her body produce the right amount of milk for her baby.

On the following page is a table of energy requirements per day for different ages and types of work.

# 5 FOOD GROUPS

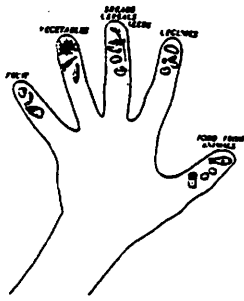


## TABLE OF ENERGY REQUIREMENTS

	CALORIES PER DAY
1 to 2 years	1000
3 to 4 years	1200
5 to 6 years	1400
7 to 8 years	1600
11 to 12 years - girls	2200
11 to 12 years - boys	2000
13 to 17 years - girls	2500
15 to 18 years - boys	3000
pregnancy	2900
lactation (nursing women)	3400
adult man	2400
adult man - very active	3000
adult woman	2200
adult woman - very active	2500

There is some energy in all foods. Most people get most of their energy from grains and legumes. It takes almost exactly a kilogram of dry grain and legumes a day to provide 3,400 calories for an active nursing woman.

## 5 FOOD GROUPS



Body Building foods (proteins) are needed to:

1. Grow - when a child is growing he needs body building foods.
2. Repair and maintain body parts - the cells (building blocks of the body) are always changing and getting worn out. They have to be repaired and replaced. When the body is hurt, body building foods are needed to repair it.
3. Keep the body in working order - your body gets protein (body building foods) when you eat these foods.
  - animal products group - animal products give you complete body building units. You get body building units when you eat eggs, milk, meat, cheese and fish. Young babies get body building units from their mother's milk.
  - breads, cereals, seed group and legume group - when eaten separately usually give only a part of body building unit. When you eat them together you get a whole body building unit.

Here are some bread, cereal, seed group and legume group examples. They can be eaten together in any combination as long as you eat one from each group in the following proportions:

1. Use  $1\frac{1}{2}$  cups grain for  $\frac{1}{2}$  cup beans (ratio 3:1)
2. Use some milk with every dish that is mainly beans

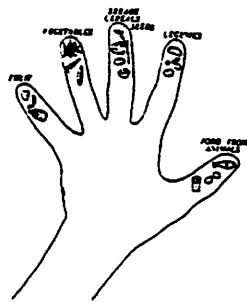
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There are many common combinations of seed and legume groups served in every part of the world. Some of these combinations are listed here:

rice and bean casserole  
wheat and soyflour bread  
corn and soyflour bread  
wheat bread and baked beans  
rice and dahl (lentil) curry  
rice and peas  
corn tortillas and kidney beans

wheat crackers and pea soup  
bread and peanut butter  
sesame salt on bean casserole  
roasted sunflower seeds and peanut  
rice and soy bean curd.

# 5 FOOD GROUPS

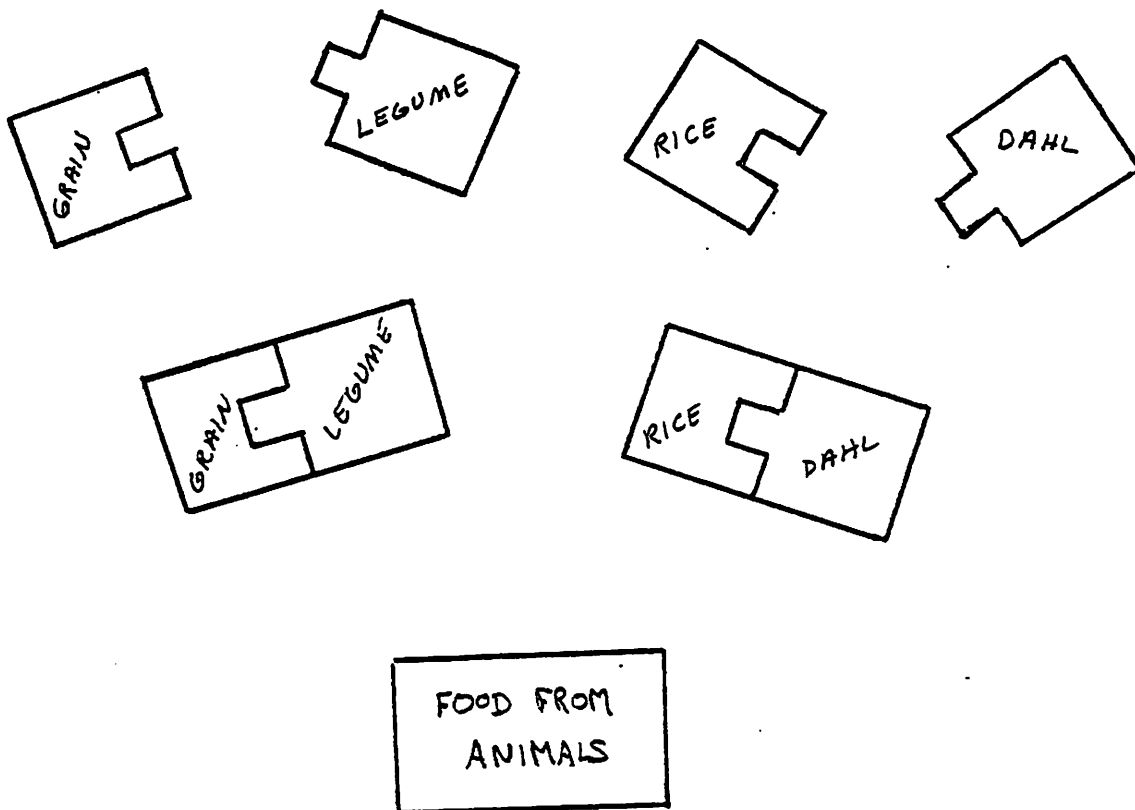


## Body Building Foods cont'd

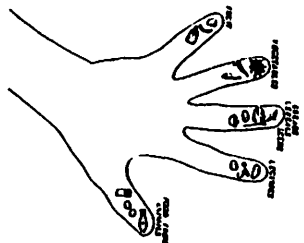
### OTHER COMBINATIONS

Whole Wheat, Rye, Oats  
 Bulgur, Brown Rice, Macaroni  
 Barley Buckwheat, Noodles  
 Wheat Bran, Millet, Grain  
 Sorgham

Blackeyed Peas, Split  
 Peas, Full Lentils  
 Chick Peas, Mung Beans  
 Lima, Soybean Curd  
 (Tofu), Kidney, Navy



# 5 FOOD GROUPS



## PROTECTIVE FOODS

Protective foods help to protect your body from getting sick and help it work well. It is the vitamins and minerals in the protective foods which help us. In the following pages is a chart with some of these vitamins and minerals and some helpful information about them.

VITAMIN	WHAT IT DOES	WHERE YOU GET IT	WHAT HAPPENS WHEN YOU DON'T GET ENOUGH	PROBLEMS COOKING AND STORING
FOLIC ACID	proper formation of blood cells	<u>animal foods:</u> liver <u>vegetables:</u> asparagus, corn, broccoli <u>legumes:</u> cowpeas, lentils, navy & kidney beans <u>bread, cereal, seed:</u> whole grains	anemia (weak blood)	
VITAMIN B <sub>12</sub>	keeps nervous system healthy	<u>animal foods:</u> liver, kidney, meat, milk, cheese, oysters, fish, yogurt	anemia (weak blood)	

# PROTECTION FOODS

Protection foods help to protect your body from getting sick and help it work well. There are two kinds of protection foods: vitamins and minerals. In the following pages is a chart with some of these vitamins and minerals and some helpful information about them.

VITAMIN	WHAT IT DOES	WHERE YOU GET IT	WHAT HAPPENS WHEN YOU DON'T EAT ENOUGH	PROBLEMS COOKING AND STORING
VITAMIN A	keeps eyes and skin healthy, helps prevent irritability, keeps nervous system healthy, gives energy from food eaten	<u>animal foods</u> : eggs, meat, fish, cheese, liver, buttermilk <u>vegetables</u> : dark green leafy and dark yellow <u>fruits</u> : deep yellow or dark fruits (mangos or tomatoes) <u>legumes</u> : green peas, green beans	hard to see at night; rough, dry, itchy skin	destroyed by long cooking or drying in the sun
VITAMIN B <sub>1</sub> (THIAMIN)	keeps nervous system in working order	<u>animal foods</u> : meat, fish, liver, pork, eggs <u>legumes</u> : nuts, peas, dried beans <u>bread, cereal, seed</u> : rice, sorgham, maize, wheat (unmilled)	beri-beri (numbness or tingling in feet or toes, fatigue, poor appetite, sensitivity to noise or pain)	lost in cooking water and milling
VITAMIN B <sub>2</sub>	healthy eyes, skin, hair; proper growth; aids body in using air	<u>animal foods</u> : liver, milk, kidney, cheese <u>vegetables</u> : dark green leafy <u>legumes</u> : peas, beans, peanuts, cashews <u>bread, cereal, seed</u> : wheat	bloodshot eyes, lip sores, skin disease	lost in cooking water

VITAMIN	WHAT IT DOES	WHERE YOU GET IT	WHAT HAPPENS WHEN YOU DON'T GET ENOUGH	PROBLEMS COOKING AND STORING
VITAMIN B <sub>3</sub> (NIACIN) (NICOTINIC ACID)	aids body in using air	<u>animal foods</u> : liver, chicken, insects, fish <u>legumes</u> : groundnuts	Pellagra (mental confusion, scaly skin, weakness, poor appetite)	Lost in cooking water
VITAMIN C	keeps gums healthy; prevents fatigue; necessary for healthy bones, teeth, blood; helps wounds heal fast; helps body resist infection	<u>vegetables</u> : broccoli, collards, kale, onions, brussel sprouts, green leaves, green peppers <u>fruits</u> : oranges, tomatoes, cantelope, lemons, mangos, paw paws, pineapple, bananas	Scurvy (listlessness, lack of endurance, pain in legs and joints, nose bleeding, bruises, bleeding gums)	easily destroyed by heat
VITAMIN D	works together with mineral calcium for healthy bones and teeth	made by action of sun on skin; <u>animal foods</u> : butter, cheese, fish liver oil, eggs, liver	weak bones Rickets (faulty bone growth)	
VITAMIN K	helps blood clotting (to stop bleeding)	<u>animal foods</u> : liver, eggs <u>vegetables</u> : dark, green leafy <u>legumes</u> : soy bean oil, green peas	excessive bleeding in injuries	



MINERAL	WHAT IT DOES	WHERE YOU GET IT	WHAT HAPPENS WHEN YOU DON'T GET ENOUGH	SPECIAL PROBLEMS
IRON	needed for good blood and air in blood	<u>animal foods:</u> liver, red meat, kidney, egg, insects <u>fruits:</u> dried fruits <u>vegetables:</u> green leafy <u>legumes:</u> peas, beans <u>bread, cereal, seed:</u> whole grains, molasses, sorghum, jaggery	anemia (weak blood) fatigue, listlessness	extra amounts needed by pregnant women and people with malaria and worms
CALCIUM	growth of bones and teeth, blood clotting, muscle action and relaxing	<u>animal foods:</u> milk, meat, eggs, small fish, cheese <u>legumes:</u> peas, nuts <u>bread, cereal, seed:</u> whole grains <u>vegetables:</u> green leafy	weakening of bones and teeth, poor growth	Vitamin D in diet also is necessary for calcium to work
IODINE	regulates rate body uses energy	<u>animal foods:</u> fish and salt from the sea	goiter (growth on the neck)	
FLUORINE	keeps bones and teeth healthy	<u>animal foods:</u> some small fish found in some water supplies	bad teeth	too much fluorine darkens teeth

## 5 FOOD GROUPS



## BABY FEEDING

### NEWBORN

Breast milk is the perfect food for a baby. It has the right amount of protein (body building food) the baby needs to grow. It also has plenty of calories (energy food) as well as vitamins and minerals (protection food). The milk that comes from a mother's breast the first few days is thin and watery and is called colostrum. It is very good for babies, so they should be put to their mother's breast as soon as they are born. Breast milk alone is enough for the first six months of a child's life. The mother needs to eat more protein and protective foods while she nurses.

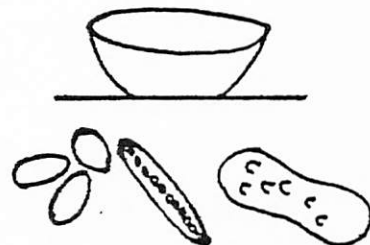


### 6 MONTHS

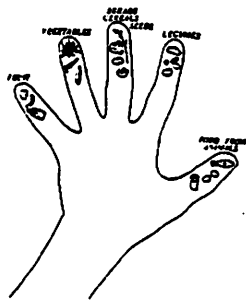
When a baby is 6 months old, he has become so big that breast milk is not enough by itself. If a child is to continue to grow, he must also start eating a thin porridge. His mother can make the porridge by boiling maize, millet, casava or rice in water. This porridge should be given once a day when the baby is most hungry. When he is eating the porridge well, he can have  $\frac{1}{2}$  cup of it 2 or 3 times a day.



In 2 or 3 weeks when the baby is eating plain porridge well, some body building protein foods need to be mixed with it. Animal products such as dry milk powder and egg should be added. The mother can also use the liquid in which she cooks the legumes (seeds in pods) in place of plain water.



## 5 FOOD GROUPS

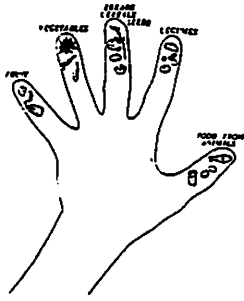


Other foods the mother should add to the porridge as the baby gets older are pounded groundnuts, groundnut butter, mashed skinned beans and pounded fresh fish. At least once a day the baby should eat some protection food such as dark green leaves or fruit.

The mother should be sure that the food she adds to the porridge are cooked, mashed and mixed in well. Because mother's milk is an important was the baby gets body building protein, a mother should go on breast feeding her child until he is eighteen months or two years old.





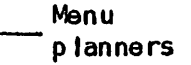


# 5 FOOD GROUPS

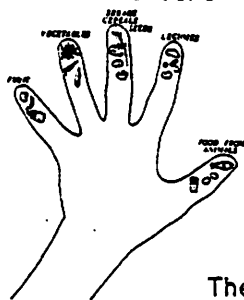


AN ADEQUATE FOOD PROGRAM FOR THE VILLAGE

# JOURNEY TOWARDS ADEQUATE VILLAGE NUTRITION

BEGINNING STAGES	DEMONSTRATION STAGES	REFINEMENT STAGES	SELF-SUFFICIENCY STAGES
<p>Survey and analysis Advise Agriculture Guild Establish Auxillary Kitchen Get Scale to weigh babies</p>	<p>Check elders nutritional status Begin Hotel Dynamics Community lunch program</p>	<p>Take on 2 new aides Aides to cook aides Cook aides </p>	<p>Take on 2 new aides aides to cook aides Cook aides  Cook purchaser  Menu planners teach nutrition in Mother- Infant program.</p>
<p>Baby weighing begins detection Emergency Infant Feeding Program Pre-school Feeding Prog. Apply for: Emergency Food Begin Community Garden</p>	<p>Stake gardens Initiated (depend on growing season) Take on 2 new aides In Community Kitchen Present aides become cook aides</p>	<p>Nutrition Education begun In Schools</p>	<p>Survey again Analysis - determine Status - advise Agriculture &amp; Industry Guilds</p>
<p>Set-up separate Community Kitchen - launch to open house Formal Infant Feeding program begins Select &amp; train staff for Community Kitchen begin as aides Health Trek</p>	<p>Food from community garden into Community kitchen for pre-school Infant feeding Expand community garden</p>	<p>Take on 2 new aides Aides to cook aides cook aides  Purchaser  cook</p>	<p>Emergency Food finished Kitchen Self supporting</p>

## 5 FOOD GROUPS



## WHAT IS ENOUGH ENERGY?

There is a formula on this page to figure out the amount of grain needed to provide enough energy to everyone in the village for a whole year.

Here are some facts you must know to understand the formula:

A calorie is a measurement of energy that you get from food.

3,000 cal per day is the number of calories used by a man at active work.

365 days is the number of days in a whole year

3400 cal is the number of calories provided by a kilogram of grains such as rice, corn, wheat or sorgum and is approximately the number provided by a kilogram of legumes.

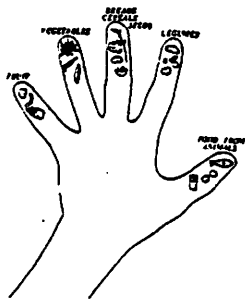
Here is the formula:

$$\frac{3,000 \text{ cal} \times 365 \text{ days} \times \text{population of village}}{3400 \text{ cal}} = \text{kilograms of grain needed each year}$$

The local farmers usually know almost exactly how much land is being used for crops and how much of each crop is produced for each section of land, so it is possible to figure out how much food is grown altogether by the farmers of the village. Compare this amount to the amount that the formula says you need in a year. When there is less food produced than is needed, plans must be made to increase production on land already farmed or to increase the amount of land being farmed. Where there is more than enough food being grown, some of the food can be sold for cash outside the village, and plans can be made to grow a variety of crops to improve the diet available in the community.

The health guild usually works with the agriculture guild to make plans that will guarantee enough food will be grown to feed the whole village. Next the health guild must work with the commerce guild to be sure that the food produced by the village farmers will be made available at a just price to people in the village who have little land and must purchase their food. Working together, the guilds can be sure that everyone in the village has enough food to do his work.

## 5 FOOD GROUPS

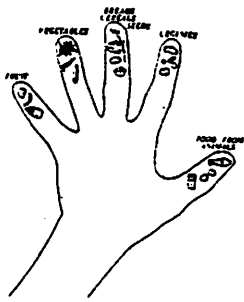


## HELPFUL FACTS ABOUT FOOD

1. You need to eat food from all five food groups at every meal.
2. Eat fruits and vegetables raw to get the most food value. Those which are cooked should be cooked with the skins on.
3. Liquids from cooking should be saved and used in soups or drinks.
4. Whole grain is better for you than grain which has been milled, hulled or bleached. Eat brown rice instead of polished rice. Eat whole wheat flour instead of white bleached flour.
5. "Enriched" means the flour has had some of its nutrients put back into it. It is better for you than white bleached flour but not as good as whole grain flour.
6. Darker green leaves and darker orange color of vegetables and fruits have more vitamins (such as Vitamin A) than leaves which are light green and vegetables and fruits which are light orange.
7. Sprouted beans are a good source of Vitamin C.
8. If fruits and vegetables are likely to be contaminated, they must be disinfected or peeled before eating raw. To disinfect, wash thoroughly, soak for 30 minutes in pure water with added disinfectant (Clorox or Lugol's solution). Rinse thoroughly.



## 5 FOOD GROUPS



## NUTRITION SURVEY

A survey is taken by going to many or all of the houses in the village and asking the same questions at each house. For a family nutrition survey, you would ask in every house about what foods were eaten by the members of the household during the past 24 hours. In our survey we would then ask how the food was prepared and whether the family grew that food itself or purchased that food.

In our nutrition survey, we also measure the arm circumference of children between the ages of 1 to 5. This gives us information about how well these children have been fed during the past year.

After you have filled in the part of the survey that the people give answers to, you can find all the foods they mentioned in a "food value table" and find out how many calories and how many grams of protein were eaten by a family that day.

By thinking about the answers we find to our questions, we can figure out what problems of nutrition still remain to be worked on by the health guild. Here are some examples of what we might find out on the survey and what we would then know about the village.

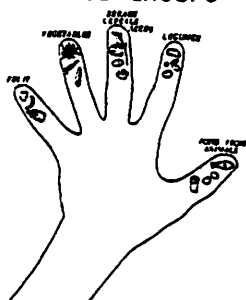
If you find that very few families are eating enough calories and many children have very thin arms.....then you know that the village must work very hard on increasing food production.

If you find that most families have enough to eat, but a few families do not have enough.....then you know that there is enough food produced, but you must figure out how to help individual families increase their family income

If you find that few families can understand the five food groups.....then you know that you must improve your system for teaching about five food groups at every meal.

If you find that families know about the five food groups but do not eat these foods.....then you know that you must teach people how to find or grow the varieties of food they need.

# 5 FOOD GROUPS



## GUIDELINES FOR NUTRITION SURVEY

(refer to section on surveys in Vitality Maintenance Chapter)

1. The left-hand portion of the chart is to be completed during the conversations with the family. The right two columns are for calculations to be made during the evaluation.
2. Record all food consumed by the family, even if not prepared by the homemaker (don't forget to include mother's milk if child is nursing).
3. Determine amounts as close as possible. Make estimated in cups (250ml.)  
The amount which can be held in one (woman's) hand is approximately one-half cup; two hands cupped together (double handful) holds 1 cup.
4. If mixed food is prepared, find out exactly what went into it - such as  

"stew" is recorded as    meat - 1 cup  
   potatoes- 2 cups  
   carrots - 2 cups
5. Children's Arm Measurements: measure arms of all children ages 1-5 years. Instructions follow for preparing and using measuring tape.  
Record on page following Survey Chart, the number of children in each family and the color the arm band measured for each child.

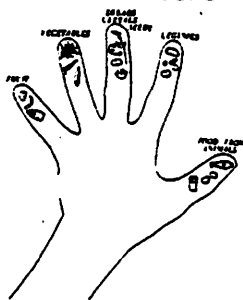
# FAMILY NUTRITION SURVEY

Family Name \_\_\_\_\_

Number of people in family \_\_\_\_\_

Food Eaten In Last 24 Hours			How Prepared	Where	From	Nutrition Provided	
Food Group	Name	*Amount	(boil, fry, raw, bake, etc)	Grown	Purchased	Calories	Protein
ANIMAL							
VEGETABLE							
CEREAL BREAD SEEDS							
OIL							
LEGUMES							
FRUIT							
* how is food stored _____						TOTAL FAMILY INTAKE	
how often do you go to market? _____							

## 5 FOOD GROUPS



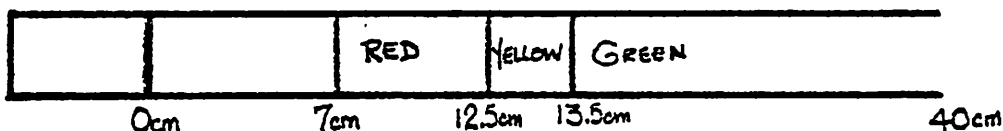
## TAPE FOR MEASURING NUTRITIONAL LEVEL OF CHILDREN 1-5

Tape can be made from thin cardboard, or any non-stretching material. It should be 1cm wide and 40cm long. It is given three colors.

example of colors: red - severe malnutrition

yellow - mild malnutrition

green - normal nutrition



Choose color for the malnourished area that signifies danger in that culture.

### HOW TO USE TAPE:

Measuring the upper arm of the child is most helpful if done every 6 months, for 1-5 year olds only.

Tell the child to stand relaxed with his arm at his side.

Place the tape around the middle of his upper arm.

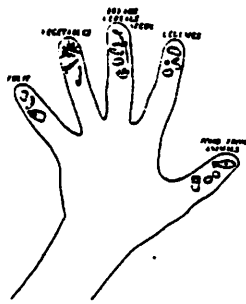
Be careful the tape is not too tight or too loose (should be snug but not dent the arm).

Note the color the child's measurement is and record on sheet labeled "arm band measurement"

It is good to record the total village data on a chart and place it in a public space. Compare these results to the results of a survey done six months previously to see how the nutrition of the children has improved over that period of time.

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## 5 FOOD GROUPS

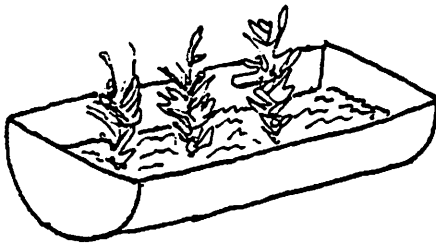


## COMMUNITY GARDEN

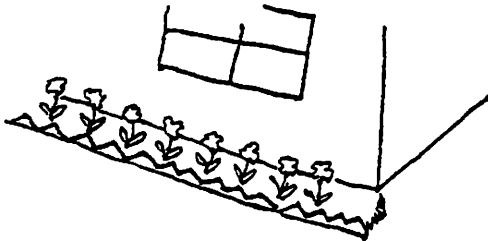
- purpose - to show new foods, show new ways to grow food
- to have food for community kitchen
  - to encourage home gardens



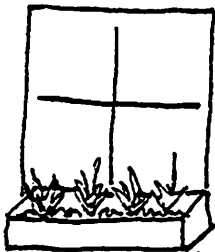
Basket - give to families to take home. Good for plants like tomatoes. May need to stake vine plants.



Barrel - any available container can be used. Put 1-2 inches of loose stones in bottom, add soil. Have holes in bottom for drainage. Have near house and water with used kitchen water.

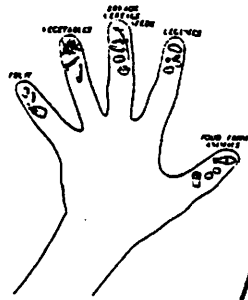


Flower Beds - use areas next to house. Easy to water and can be protected from animals.

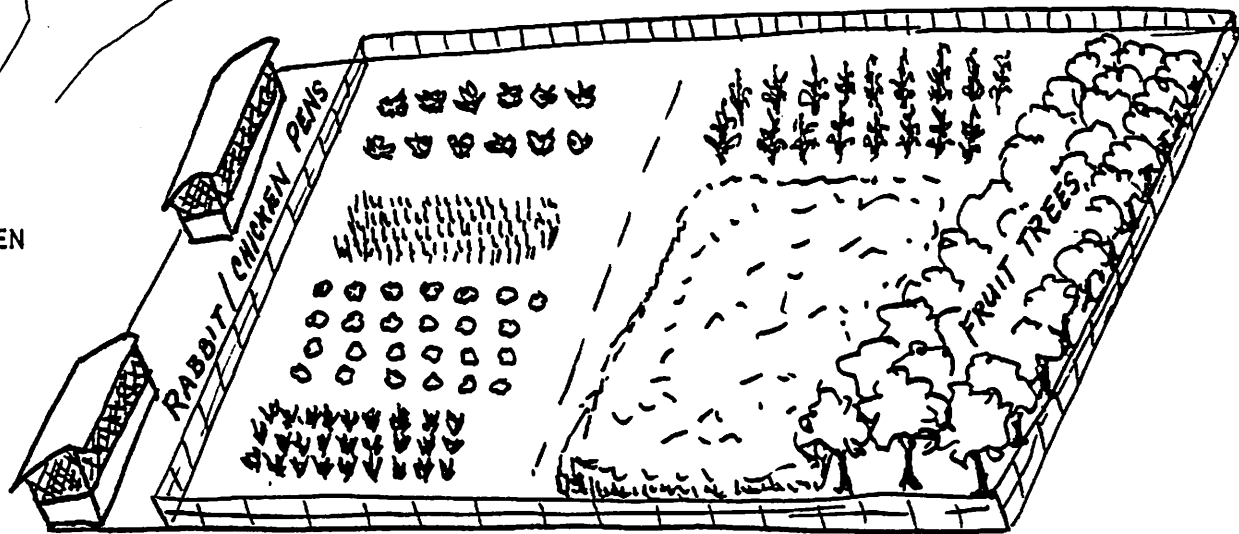


Window Box - can grow small vegetables, like lettuce, onions. Good for elders and crowded places. Need some sun during day.

## 5 FOOD GROUPS



GARDEN PLOT



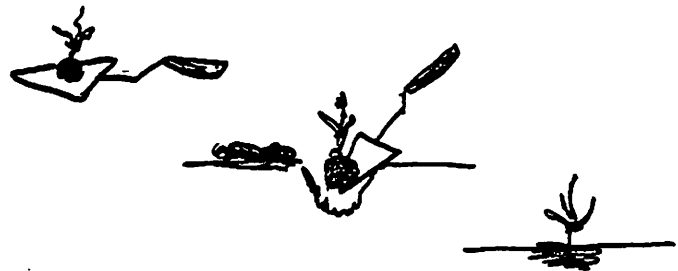
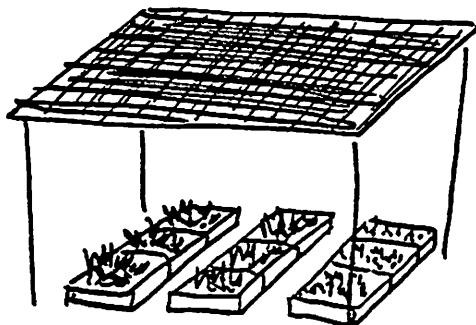
Plant crop that supplies needed nutrition for village. The nutrition survey will tell you what is most important.

The garden needs to be near water (irrigation) or have enough rainfall. There needs to be good drainage.

Fencing may be needed if small animals or children are a problem.

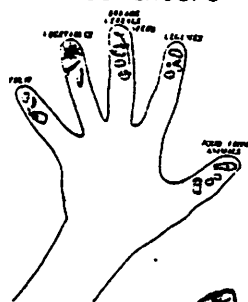
SHADED  
SEED  
BED

This is a way to plant seeds and have plants ready to put in the ground as soon as the present crop is harvested.





### 5 FOOD GROUPS



### COMPOST HEAP

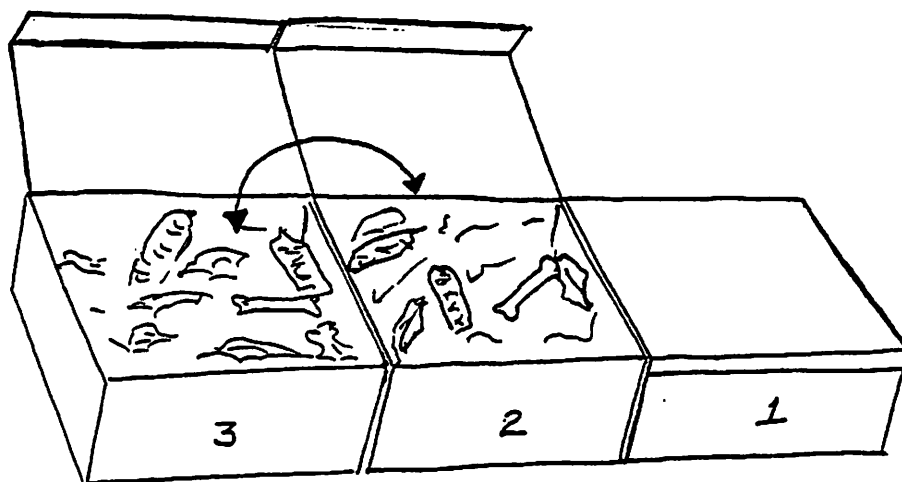
Leaves, weeds, vegetables and fruit peels, fish and chicken bones, tea leaves, cornstalks, animal manure, ashes. Bedding and droppings from small animals (chickens, rabbits, goats)

Protective cover needed in rainy areas

There will be flies and insects. Have away from houses

### Organic Compost Box

layer: sawdust  
manure  
dry leaves  
wet garbage  
sawdust



1. finished
2. working
3. for turning

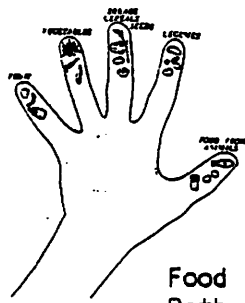
Turn between box 2 and 3 every couple days. Water compost if it is dry. Keep damp, not wet. Add some wet and some dry material. Sawdust is a filler. Use other local things for sawdust, like chopped straw.

Compost is usable in 3-4 weeks.

Use compost material to add to soil, and make plants grow better.

Good Compost Feeds The Soil  
For Better Garden Grown Crops.

## 5 FOOD GROUPS



## COMMUNITY KITCHEN

Food is what we eat. Nutrition is how our bodies use food. Both are important to body-building and to staying healthy. Good nutrition is necessary for people to be able to take part in the community. Calories (energy units) are what give you energy to participate fully in the community.

There is a need then, in Global Social Demonstration for proper nutrition. A Community Kitchen one way to teach and enable a community to feel the difference that getting enough of the right foods can make. To begin with you need to decide the nutritional needs of the people in the village by looking at the babies, children, youth and adults through the survey. It is easier to get food to people after you decide what foods they need.

To begin, choose a food that is already eaten by most of the people. Something simple like bread with a spread is a good start. Bread with peanut butter is an example. After supplying calories (energy foods), body building foods (protein) should be of concern. Protein's are very important because they keep the body strong and healthy, repair it when it is hurt, and give the building blocks needed for growth. Proteins (body building foods ) are in animal foods such as eggs, yogurt, cheese, fish and also in legumes when eaten together with foods made from grain such as cereal or bread or rice.. Bread with peanut butter, tortillas and beans, rice with lentils are examples.

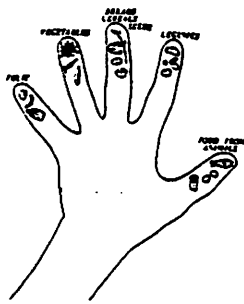
After calories (energy food) and proteins (body building foods) are made available, vitamins and minerals (protective foods) are needed. One way to insure getting several vitamins and minerals is to list the twenty most common foods, the cost of these foods and when they are available during the year. Try to list foods in all of the Five Food Groups. Be sure to use foods from each group.

The Community Kitchen doesn't need to have complete meals or a building in which to get a nutrition program started. The most simple community kitchen is located in a house that is not otherwise fully used. Plan for enough cooking space so that several people can work together in the kitchen. Arrange the kitchen so it will be an example of good food storage and cleanliness.

The first step might be to make snacks for the guild meeting or meals for a work day. Rice balls with soy bean filling or bread and peanut butter are examples. You can then begin to make meals for the pre-school and start the mother-infant feeding program. If food is a critical need in the village, you may decide to offer a daily meal for everyone. As a general rule, it is best to offer a daily meal in the context of some other structure such as literacy classes, daily guild meetings, or work core meeting.

Community Kitchen staff must be willing to get people to try some new foods. Keep in mind that most people don't eat a lot of new food the first time they taste it. Nutrition teachers have learned that you should offer a new food at least six different times before you conclude that the people of the village will not learn to like it. In addition to teaching good nutrition habits, the community kitchen trains the community in sanitation and large group events.

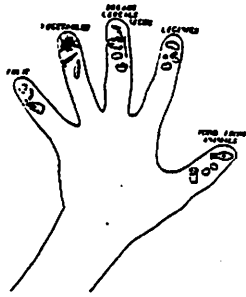
## 5 FOOD GROUPS



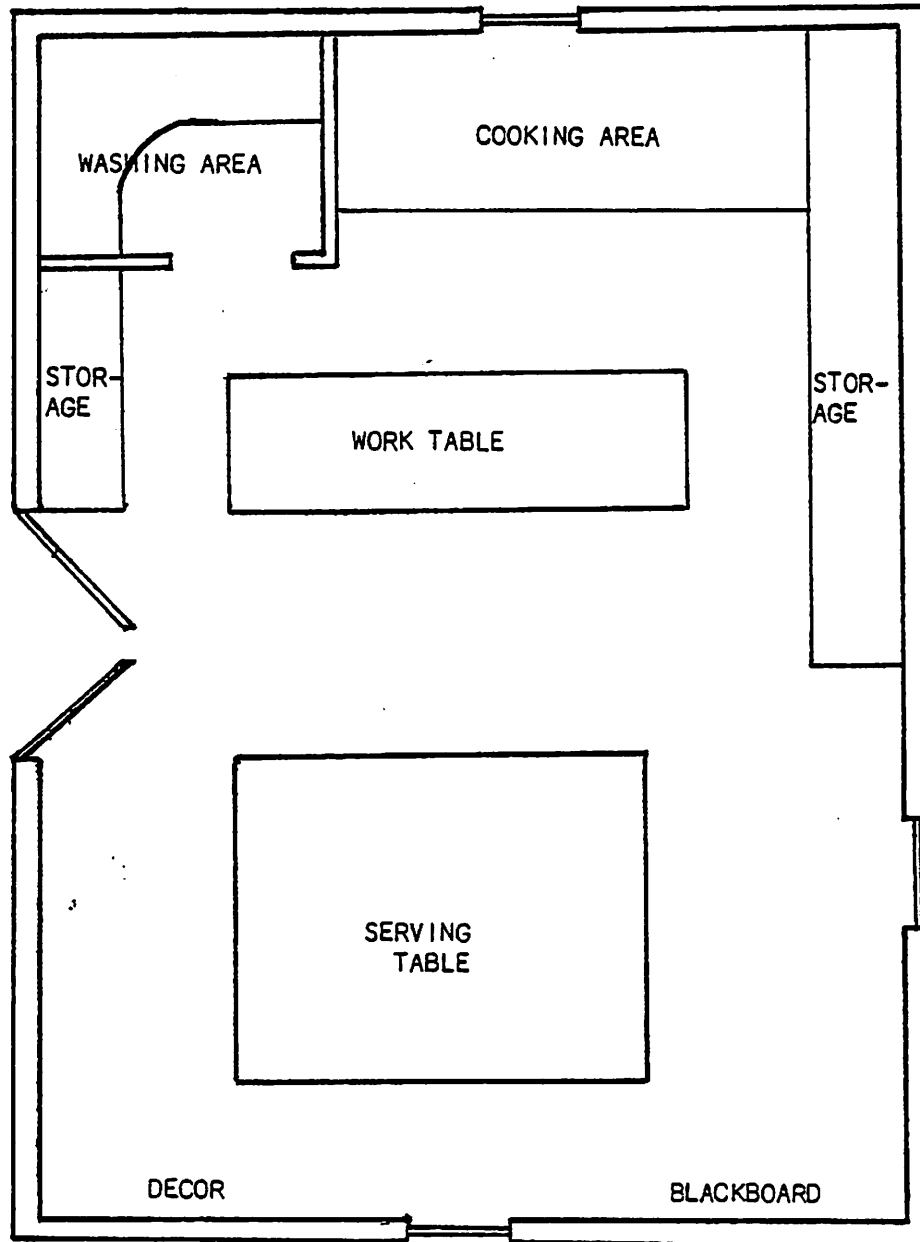
## COMMUNITY KITCHEN (cont)

Once the program is going well, the community may decide it is necessary to build a place planned just for the community kitchen. The building should be built as simply as possible, using local materials. It should show that a building can be made which keeps insects and rats out of the food storage and cooking area. A good latrine should be provided nearby. A kitchen garden will not only supply some of the foods eaten, but will keep the appearance of the area good. In some climates, only a floor, roof and benches are required to give people a place to eat. If it is convenient and nice to look at, people will be encouraged to use the Community Kitchen as a Community Meeting Place.

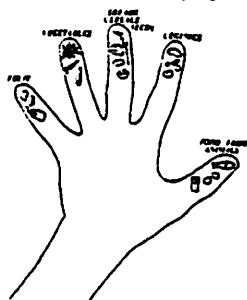
5 FOOD GROUPS



COMMUNITY KITCHEN  
FLOOR PLAN



## 5 FOOD GROUPS



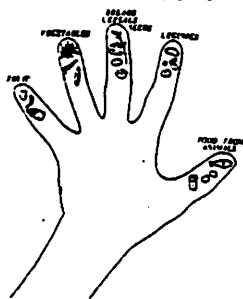
## COMMUNITY KITCHEN EQUIPMENT

The following list of equipment is meant as a resource. The exact equipment needed in each project will depend on local cooking practices and village size. Keep in mind that equipment is not necessary to begin the community kitchen dynamic and will probably be acquired gradually.

Large Equipment: Burners with table  
Oven  
Refrigerator  
Food preparation table  
Shelves for dishes and cooking equipment  
Enclosed food storage area

Small Equipment: Large pots  
Large frying pans  
Mixing bowls  
Cooking utensils  
Knives  
Rice Cooker  
Grinding stones  
Chopping block  
Dishes  
Garbage bucket with lid  
Trash bucket  
Towels  
Pot holders  
Aprons  
Broom and mop  
Dish cloths  
Soap  
Disinfectant

## 5 FOOD GROUPS



## KITCHEN SANITATION

Sanitary practices in the kitchen are necessary to prevent the spread of disease

### WORKERS

Wear clean clothes or clean aprons  
Wash hands with soap and water before beginning work and after using the toilet  
Clean and cut finger nails  
People with cuts and sores on hands should not work in kitchen

### KITCHEN

Clean stove, food preparation areas and eating areas after each meal or snack  
Mop floor once a day  
Clean food storage areas as necessary  
Use soap or disinfectant for all cleaning

### COOKING:

Prepare and cook food on tables raised up off floor  
Wash food preparation utensils (knives, spoons, etc.) before using on a second food.

### DISH

### WASHING

Scrape all food into garbage bucket  
Wash dishes in soapy water with an added disinfectant such as chlorine bleach (2 Tlb/gallon)  
Rinse dishes in very hot water  
Allow dishes to dry in drainer - must be dry before storing

### GARBAGE

Have 2 containers - one for food garbage - one for trash (paper cans, bottles)  
Garbage containers must have a lid  
See sanitation section for disposal methods

## 5 FOOD GROUPS



## FOOD STORAGE

Foods such as grains, flours, sugar and beans should be kept in jars or tins with tight fitting lids. These should stand on a shelf above the floor in a cool, dry storeroom.

### VEGETABLES AND FRUITS

Keep vegetables and fruits in baskets on a raised shelf. All vegetables and fruits should be well washed and disinfected if necessary, before use. (see helpful facts about food) Refrigeration, if available, will preserve these foods longer. Vegetables and fruits can be preserved for long term storage by drying. Wash foods thoroughly and cut off rotten spots. Put them in the sun, in a protected place, on a mat for several days until completely dry. When dry, they can be stored in tightly closed tins in a cool, dry storeroom.

### MEATS

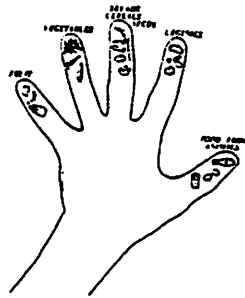
Meats are best kept under refrigeration and will stay fresh for 2-4 days. If refrigeration is not available, large pieces of meat (1 kilo or more) and whole, gutted chicken can be kept for 24 hours by the following method. Boil meat until well done, immediately after purchase. Keep in same water and same pan - covered. Every 12 hours bring to a boil (not simmer) for 10 minutes. Boil it again immediately before use. In freezing climates, meats can be stored outside in protected covering.

### MILK

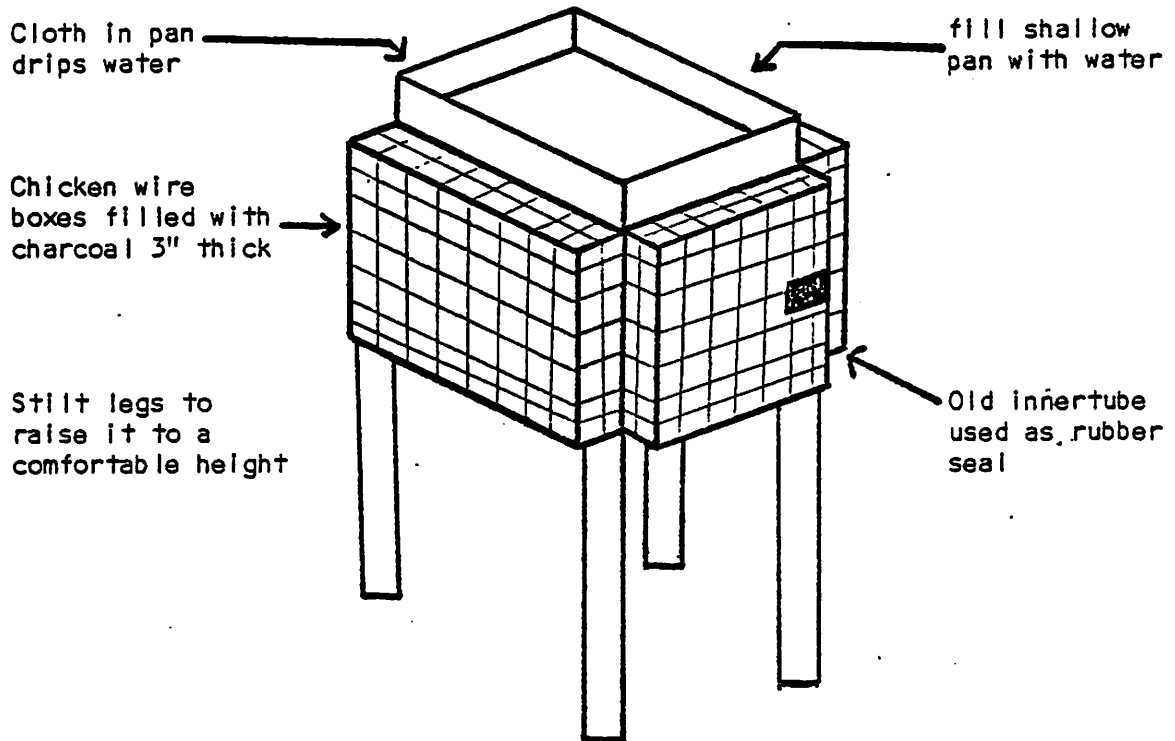
Milk is best kept under refrigeration. If this is not available, milk can be kept by boiling for 20 minutes immediately after purchase, pouring into a clean jug, covering well and keeping in a clean place. If milk curdles, it can be used for making cheese or pour on garden for fertilizer.



## 5 FOOD GROUPS



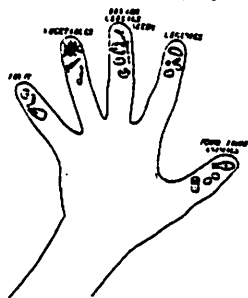
## COMMUNITY KITCHEN REFRIGERATOR DESIGN



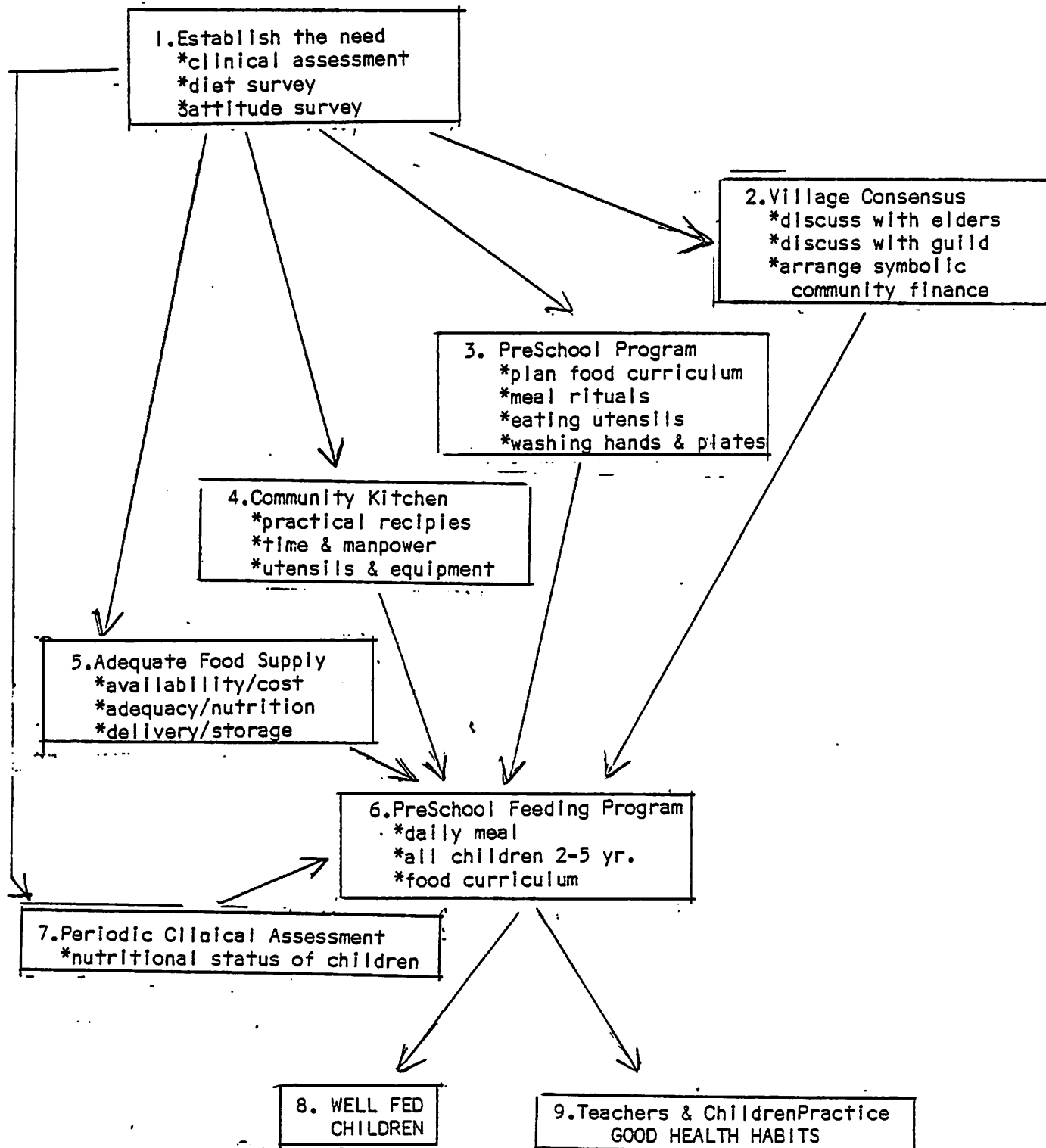
1. Limit of size - 3 feet
2. Use chicken wire as shelves
3. Build side frame with 1:by 2" slats
4. Build top and floor with wood

PRINCIPLE: The water drips over the cloth, down through the charcoal and is cooled by the air.

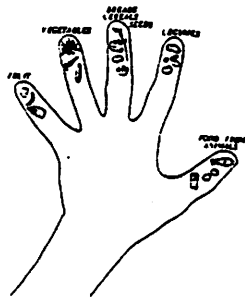
# 5 FOOD GROUPS



## LAUNCHING A PRE-SCHOOL FEEDING PROGRAM



# 5 FOOD GROUPS



## PRE-SCHOOL MEALS

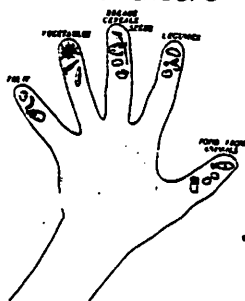
The pre-school feeding program is designed to provide half the calories and all the protein needed for a child 3 - 6 years old. This can usually be done by serving one portion from each of the 5 food groups. The foods are given as a snack and meal, as children cannot eat so much at one meal.

Below are 3 sample menus. In the blank column, fill in possible menus for your pre-school.

	Mallwada	Bayad	5th City
meal	rice 150 gm (weight before cooking) dahl curry 50 gm (weight before cooking) papaya leaves 10 gm	Balodi 150 gm (wheat bread) cheese 25 gm (water buffalo) Barseme 10 gm (green leaf) tomato 50 gm	bread 240 gm (3 or 4 slices) peanut butter 40 gm (thick spread) carrot stick 20 gm
snack	milk 200 gm ripe papaya 50 gm	Balodi 150 gm raw garden peas 50 gm	milk 200 gm (1 pt) apple 100 gm (½ apple)

U.S.D.A. surplus commodity foods are sometimes available through C.A.R.E. or Catholic Relief. While their use is justified in the face of severe malnutrition, their use must not be allowed to dampen resourcefulness and ingenuity in using local resources. Local people need to be trained in use of locally grown foods rather than imported commodities.

## 5 FOOD GROUPS



## WHEAT - SOY BLEND (WSB)

### WHAT IT IS

WSB is a supplementary food obtainable from Catholic Relief Services around the world. It is made from 73% wheat and wheat products, 20 % soy bean flour, 4% refined soy bean oil and 3% vitamins, minerals and iodized salt.

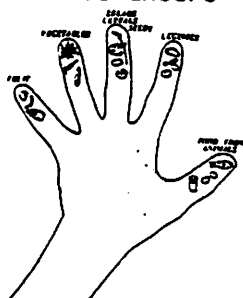
### HOW TO USE IT

WSB is pre-cooked, making it easy to use and easy to digest. It has very little taste so that each community using it can add to it the flavoring it likes best. Recipes for its use can be obtained from Catholic Relief Services.

### ITS VALUE

50 grams of WSB daily can supply most of the vitamins and minerals required by a 1-3 year old child. Its protein (a good quality mixture of cereal and legume protein) contributes over 40% of the child's daily requirement. However, it is not a complete weaning food because it is not very high in calories

# 5 FOOD GROUPS



## FOOD VALUE TABLES

It is possible to find Food Value Tables that list the food values for the specific foods eaten in your area of the world. Inquire at a local hospital food department, or the National Nutritional Institute. The chart below will provide an estimate that will allow you to proceed until you can get more adequate information.

FOOD GROUP	EXAMPLE	CALORIES/Kg (as harvested)	GRAMS PRO- TEIN/Kg. (as harvested)
Legumes	Peanuts	4000	200
Cereals & Grains	Corn	3500	100
Oil, Seeds & Nuts	Cashews	4400	150
High Energy Vegetables	Sweet potato	900	15
Low Energy Vegetables	Bean sprouts	350	35
Fruits	Oranges Bananas	440	4
Meat & Fish	(bone-in)	1550	125
Eggs		75/egg	6.5
Milk		800/Liter	35

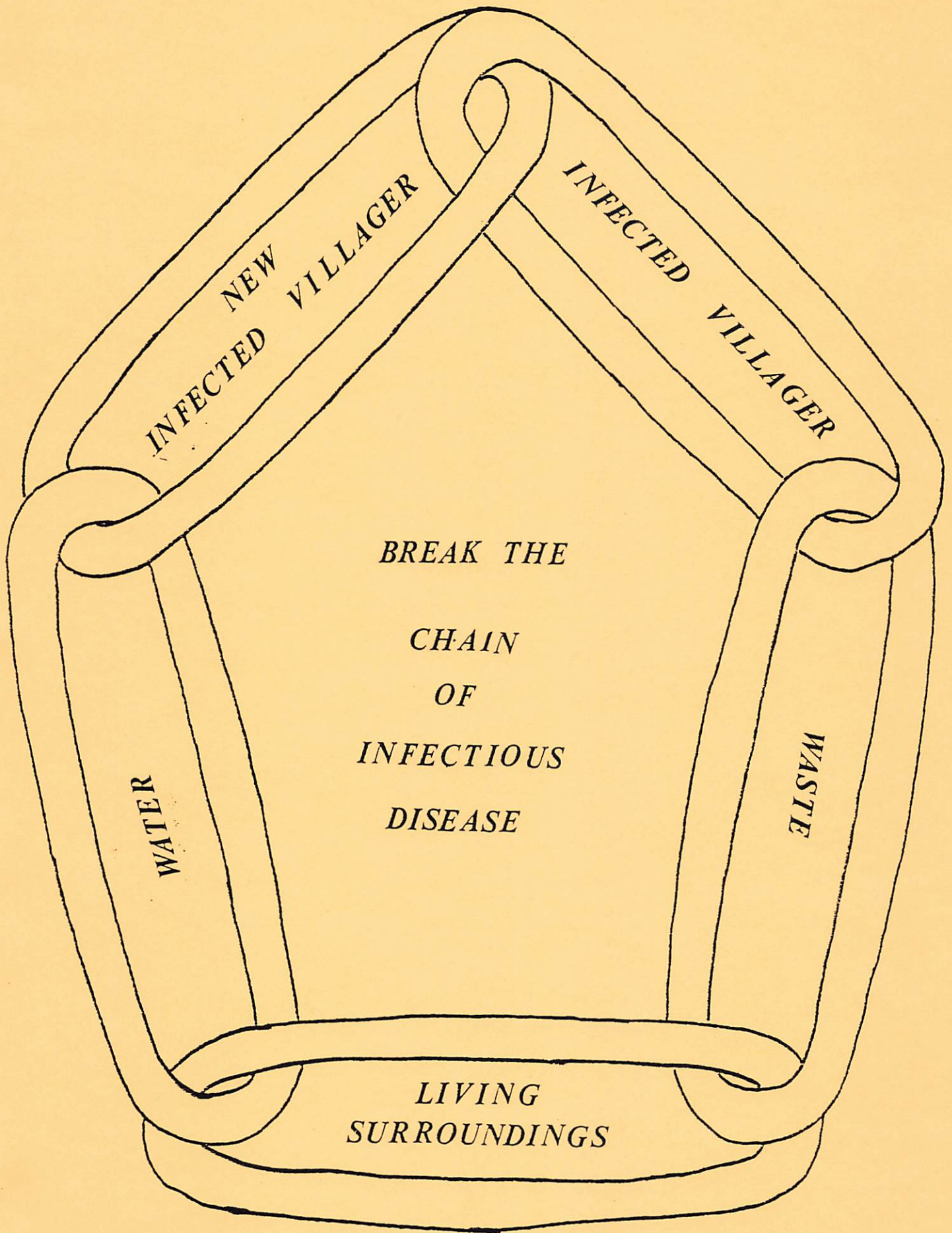
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13. Food Composition Tables, (for Caribbean use), Caribbean Food and Nutrition Institute, 1974.
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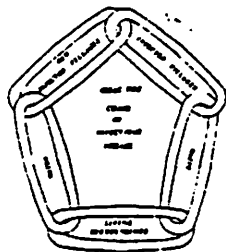






This manual was created by the Health Care Task Force of the Global Research Assembly of the Institute of Cultural Affairs in Chicago, Illinois, July, 1977. It was first published as part of the Guidebook for the Renewal of Village Vitality in August, 1977. In completing this manual we borrowed extensively from the experience and writings of others working in the field and intend that this material be freely available to those working in community development.



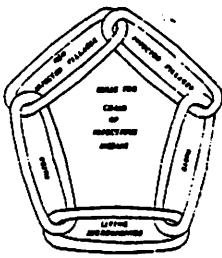


## INTRODUCTION

This section of the Guidebook describes the general principles of sanitation. It is meant to provide the basic knowledge needed to begin the sanitation systems of a rural project. The first step is conducting a survey which tells you the data you need to begin. Next is a symbol system to be placed on the grid of the village to locate existing systems. The journey chart of the sanitation system will provide an objective screen of where to begin in your situation. The three primary concerns in sanitation are assuring a clean water supply, sanitary disposal of human waste, and clean living surroundings. The bibliography will lead you to additional models and designs that may be viable in your situation.

## CONTENTS

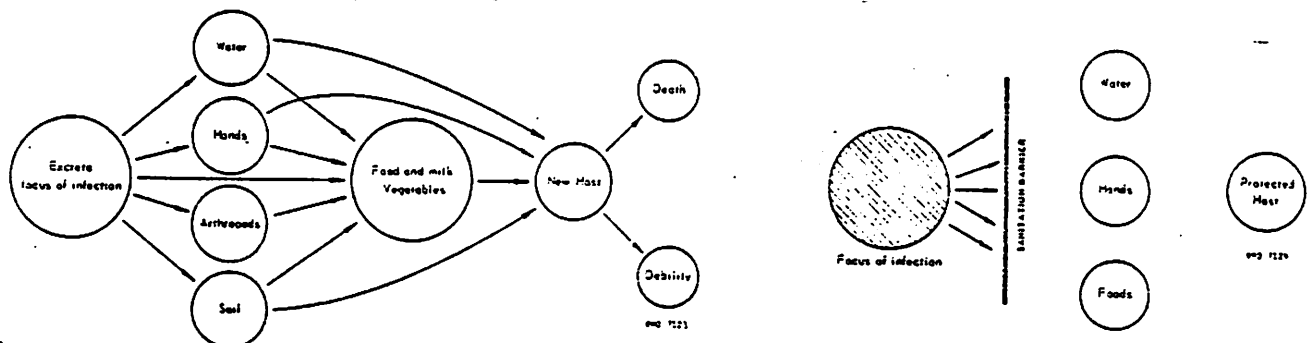
Context and Survey.....	2.4 to 2.9
General Concepts.....	2.10 to 2.15
Water Supply.....	2.16 to 2.29
Collection of Waste.....	2.30 to 2.34
Living Surroundings.....	2.35 to 2.40
Bibliography.....	2.43



## CONTEXT

Infectious diseases are responsible for nearly 4 out of 5 deaths in third world countries. Infectious diseases also cause heavy damage to community vitality. Rapid spread of infectious diseases is in large part the result of poor sanitation practices. Sanitation has to do with handling waste, food and water in such a way that infection does not spread to members of the community. Specifically, it involves

1. Construction of toilets.
2. Providing safe water.
3. Safe disposal of garbage and refuse.
4. Construction of homes which can be kept clean.
5. Teaching good habits of personal cleanliness.
6. Sanitary handling of food.

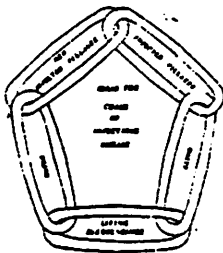


By starting good sanitary practices in a village, it is possible to reduce the death rate from infectious disease by one half or one out of two. At the same time the vitality of the village will be greatly improved. Several factors are of primary importance in making sure of good sanitation, they are listed as follow:

CLEAN WATER SUPPLY

SANITARY WASTE DISPOSAL

IMPROVING LIVING SURROUNDINGS



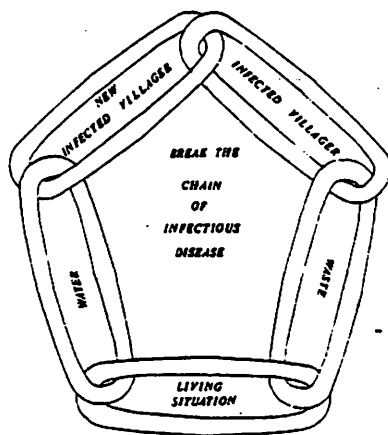
## CONTEXT (Cont'd)

Sanitation that benefits the community will have to be learned by the villagers and its importance in relation to controlling the spread of diseases must be understood if villagers are to adopt those practices which may conflict with present ways of behaving.

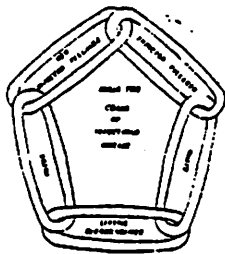
Good models of sanitary practice will have to be demonstrated by the auxiliary at all times, both to help educate the villagers and also to reduce the incidence of disease among the auxiliary.

To summarize, then, present death rates in your village (from infectious diseases) will be reduced to one half by starting good sanitary practices. Vitality can also be markedly improved. Such practices should result in a community work force with the necessary energy and stamina for carrying out the task of village renewal. Thus energy expended on sanitary measures should give quick returns in increased productivity.

Good sanitation, even if temporary measures are used initially, should be started immediately.



JOURNEY TOWARD APPROPRIATE SANITATION			
Beginning Phase	Demonstration Phase	Refinement Phase	Self-sufficiency Phase
Establish safe water 1. Test with Urotube 2. Chemical treatment 3. Clean delivery system  Secure auxiliary toilet 1. New basic type 2. Repair present toilet  Drainage system check 1. Grid 2. Clean 3. Projections 4. Public work force  Community clean-up 1. Public containers 2. All the stakes 3. Public work force	Comprehensive water plan 1. Projected new sources 2. Funding model 3. Long range storage 4. Inclusive needs 5. Well drilling equipment  Drainage system 1. Ditch Improvement 2. Soakage pits  Community toilet system begins 1. Model toilet 2. Village location  Garbage and trash disposal 1. Landfill 2. Refuse crew 3. Collection schedule 4. Compost piles	Community Housing 1. Model home 2. Home repair 3. Home sanitation  New wells completed  Water storage completed  Bathing model 1. Model bath house 2. Community location	Home repair completed  Completed toilet system  Quarterly water monitoring 1. Public works crew trained 2. Quarterly testing  Drainage system completed  Community public works force established



## SURVEY CHARTS

I. Drinking Water				
Source	Number	Tested	Treatment	Physical condition of well
Closed well				
Bore well				
Water taps				
Stream				
Spring				
Municipal				
Other				
Open				
Reservoir				

II. Water Storage			
Type	Number	Capacity	Condition
Tanks			
Cisterns			
Catchments			

III. Toilets				
Type	Number	Condition	Distance from home	from well
Open pit				
Privy				
Storage tank				
Ghandi style				
Septic				

IV. Garbage Collection		
Type of System	Number	
Open piles		
Fed to animals		
Containers		
Landfill		
Compost		

SURVEY CHARTS (Cont'd).

V

Drainage		
Type	% of village	Condition of repair
Closed or tile		
Soakage pits		
Open ditches		

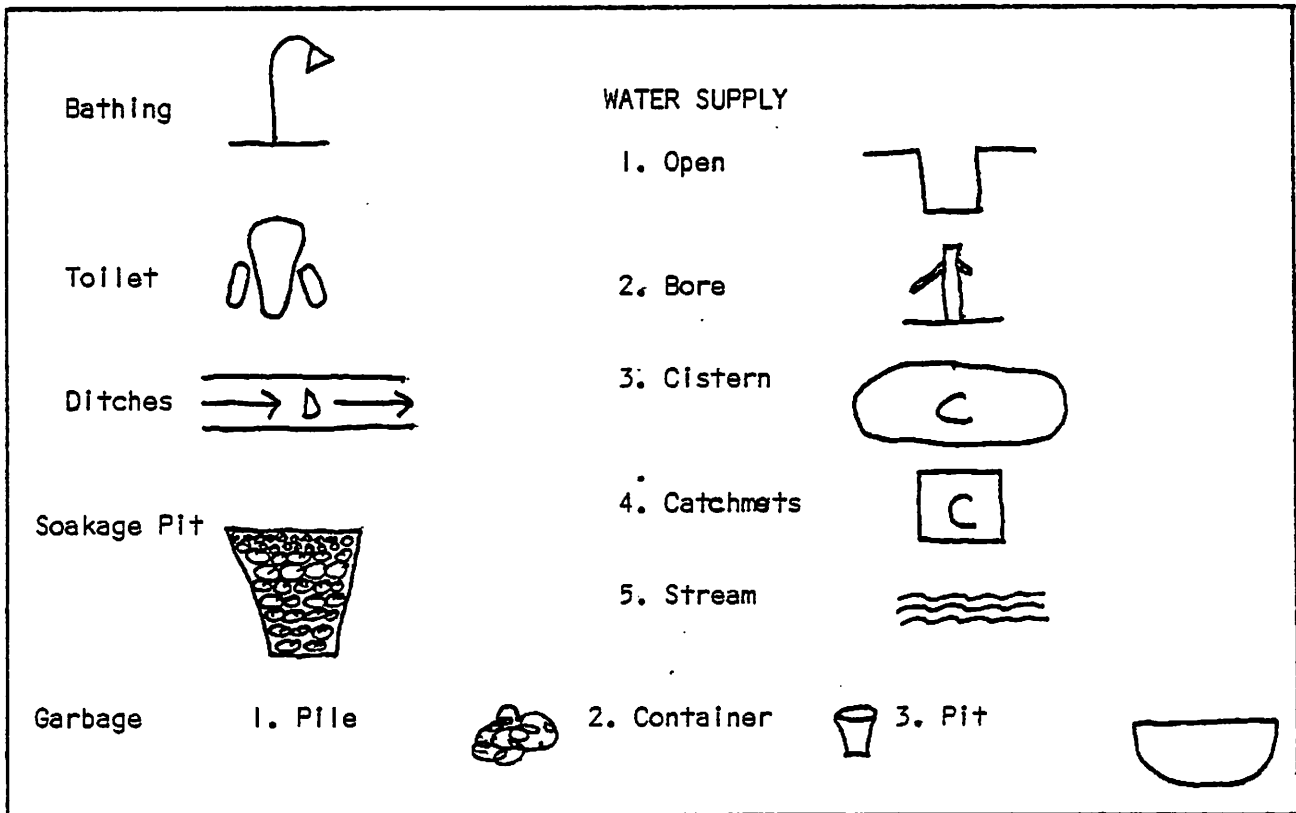
VI

What are daily water demands?		
Type	Present need	Present supply
Industrial		
Irrigation		
Emergency storage		
Fire fighting		
Domestic		

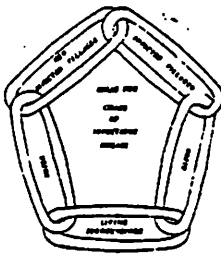
General questions

- 1) How is the water distributed to homes? Pots\_\_\_\_, Pipes\_\_\_\_ Other\_\_\_\_
- 2) How are distribution vessels cleaned?
- 3) Who is responsible for the design, operation and maintenance of water systems?
- 4) How are repairs made?
- 5) Is the same water used for two or more things?
- 6) Total use can be calculated as 30 to 50 gallons per capita per day for cooking washing, laundry, bathing etc.

# GRID SYMBOLS



These symbols can be used on the village grid to give a picture of the water system.



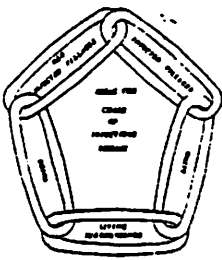
## GENERAL CONCEPTS

Infectious diseases are responsible for a large number of deaths and disabling illness in third world countries. Nearly 4 out of 5 deaths are a result of either infection of the bowel or gut (diarrhea producing) or lung and airways (pneumonia). In this section we will give a brief overview of the causes and spread of infectious diseases as well as basic principles in the control of spread of infectious diseases. We especially wish to talk about those things in the arena of sanitation which can be started in a community to reduce the spread of disease. With the adoption of good sanitation it should be possible to stop 2 out of every 5 deaths now occurring in your village. Such illnesses as diarrhea and parasites also extract a heavy toll in terms of decreased vitality and long term suffering and there should be marked improvement in these areas as well.

Infectious diseases are primarily caused by two kinds of life forms. One is the bacteria or germ and the other is parasites. Bacteria have the following properties:

1. Very small in size, not able to be seen with the eye.
2. Found everywhere, including water, soil, animals, homes, skin, mouth etc.
3. They are responsible for infection (invasion and destruction of organs). in the bowel and lung as well as many other places in the body.
4. Spread to people by way of human waste and poor sanitary practices.
5. Some diseases caused by bacteria include cholera, typhoid (salmonella) and dysentery.

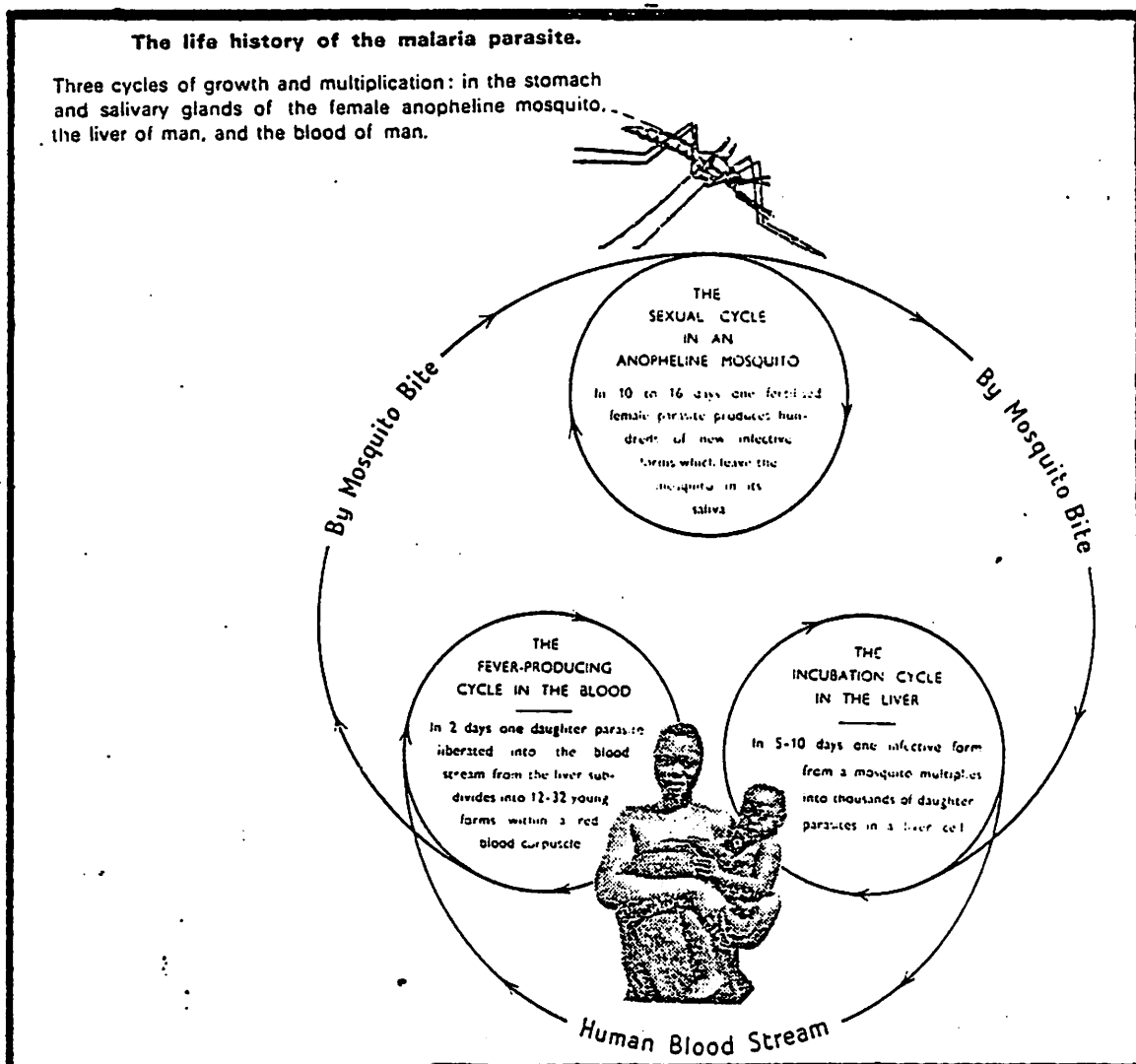


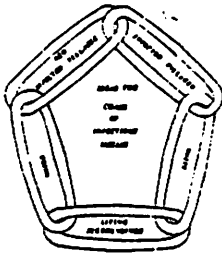


## General Concepts cont'd

Parasites when fully grown usually can be seen and can be many inches in length or only a small part of an inch. Parasites have the following properties:

1. Stages or cycles of development, involving living and growing in another animal.
2. Travel by way of human waste in the form of eggs to infect another animal.
3. Growth and development in another animal which finally results in making a form of the parasite which can cause sickness in man.
4. Parasites usually result only in long term weakness and illness, and rarely the death of the person.





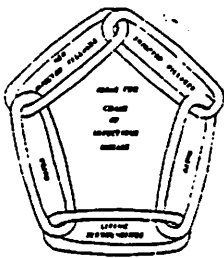
## General Concepts cont'd

Both bacterial infections and parasitic ones can be treated and individual cases cured by medicines, but unless work is done to stop the chain of spread people will catch the sickness again and again. The best and only practical way to deal with infectious diseases is to keep them from happening through the institution of good sanitary practices. After good sanitation is started, then village wide treatment programs can be started to get rid of the sickness in everybody who has it already.

A SANITATION PROGRAM WILL REDUCE THE  
NUMBER OF GERMS AND PARASITES.

Sanitary care of waste disposal, clean water supply and clean living surroundings are very useful in controlling spread of germs and parasitic infections. Also, control of certain factors of the living surroundings controls spread of infectious disease. For example, drainage of standing water will help control malaria by reducing the numbers of the insect which carries the infection, the mosquito.

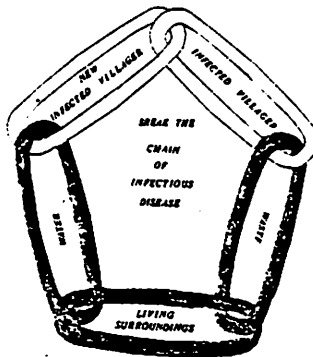
REDUCE THE NUMBER OF GERMS AND  
PARASITES IN THE LIVING SURROUNDINGS.



## General Concepts cont'd

### BREAKING THE CHAIN

Pictured below is a diagram of the chain of spread of infectious diseases, the three links shaded are ones that can be broken and stop the chain of infectious disease. A discussion of these three factors follows:



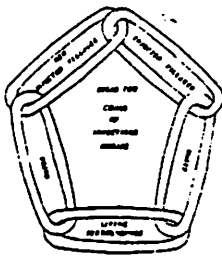
### Clean Water

Safe drinking water is essential to the control of infectious diseases. It is possible for various government agencies to test water for purity or kits can be obtained to test the water yourself. The test involves checking for the number of dangerous bacteria in the water. Those germs tested for are:

- 1) E. Coli
- 2) Clostridia
- 3) Strep fecalis

These bacteria are found in human stool, and if present in the water indicate some source of human waste contamination. Several principles hold true in terms of determining the likelihood of the presence of contamination (presence of germs) of a water source. Basically, though, open water such as lakes, streams, or open wells are open to many sources of contamination. Water from open sources should always be treated with disinfectants or germ killing chemicals such as chlorine or iodine.

APPEARANCE OF WATER TELLS YOU NOTHING ABOUT ITS PURITY.



## General Concepts cont'd

The safest source of water is from some type of well that is protected from contamination by a housing and seal. Well sources get water from deep within the ground (usually about 50 feet) and the water is cleaned by the filtering action of the soil with its many layers of sand and dirt. If taken care of these wells will deliver safe water that needs no treatment.

Dug or bore wells can be constructed in most regions. We will talk about how to make wells later.

### Sanitary Waste Disposal

Disposal of waste, particularly human stool or fecal material and garbage is a major concern in starting good sanitation.

Stool carries many infecting agents, including germs and various eggs and cysts from parasites. Thus stool must be kept away from human contact or it must be treated before it can be safely used as fertilizer.

**ISOLATE STOOL OR FECAL WASTE FROM HUMANS AND TREAT ALL WASTE THAT WILL COME IN CONTACT WITH HUMANS.**

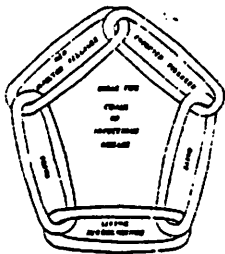
Several types of toilets are good to build in a village and how to decide which type to use will be described under the section on waste disposal. The types of toilets to be presented are:

1. Basic toilet for immediate sanitary disposal.
2. Pit privy
3. Storage tank or Ghandi toilet

### Clean Living Surroundings

Several factors about the living surroundings can be changed to help control the spread of infectious disease. In the home they are:

1. Good ventilation
2. Hard floors instead of dirt
3. Making ways for sunlight to get into the home
4. Starting good practices of hygiene or personal cleanliness such as handwashing, mopping floors, food handling etc.



## General Concepts cont'd

Outside living surrounding factors are:

1. Reduce the amount of standing water
2. Disposal of garbage and trash away from the village in covered holes in the ground
3. Control of pests such as rodents, flies, mosquitos.

Ways of doing these shall be talked about in a later section.

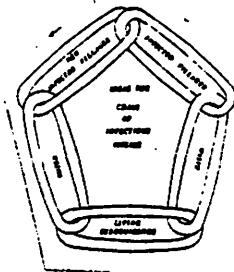
## SUMMARY

To summarize, then, sanitation can make a profound impact on the death rate in your village and can improve the vitality a great deal. By insuring a clean water supply, disposing of waste properly and controlling living surroundings, excellent benefits from sanitation can be achieved.

CLEAN WATER SUPPLY

SANITARY WASTE DISPOSAL

IMPROVED LIVING CONDITIONS



## WATER SUPPLY

Making sure of the safety of drinking water is essential to the control of infectious diseases and parasites in your village. Several aspects of water supply are to be discussed including sources of water, means of testing and methods of purification (removal of bacteria and eggs or cysts). A section will also be devoted to the drilling and maintenance of bore or dug wells.

### CONCEPTS

Any water source which is open or accessible to exposure by people or animals is suspect and must be considered to be disease carrying. Kits for testing of water purity can be obtained, the source for these is to be listed later, basically, they allow one to identify the presence of germs or bacteria in the water which are commonly found in human waste and thus reflect contamination by human waste.

It is possible to purify or treat open water supplies, including open wells and streams and lake sources. Treatment is usually done with measured amounts of chlorine, bromine or iodine. Rapid boiling with heavy bubbling for a period of 15 minutes is good enough treatment if no chemicals are available. Instructions for chemical treatment will be discussed later.

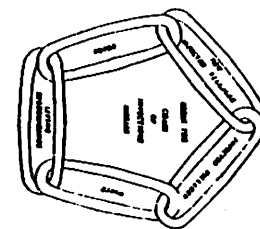
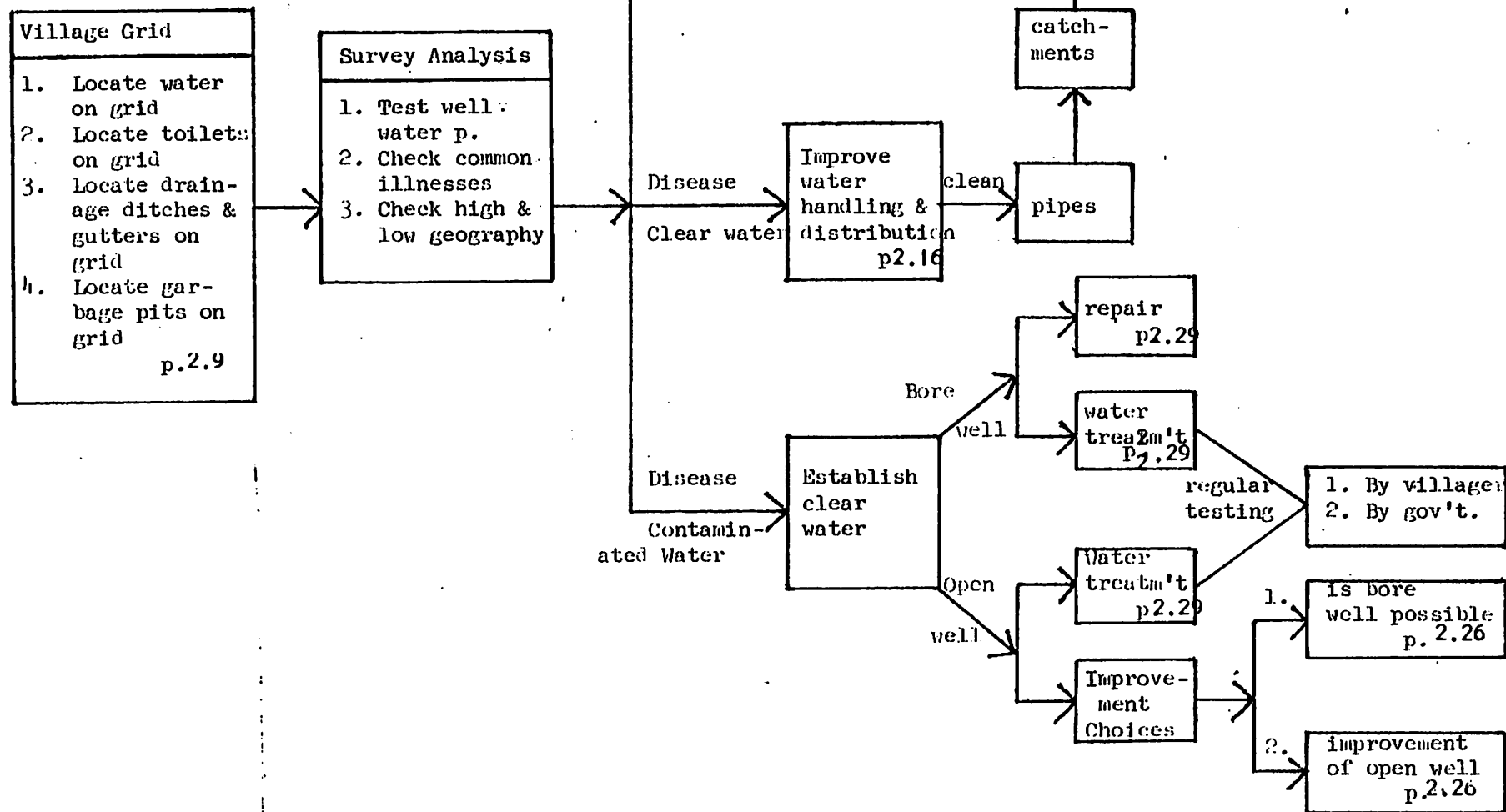
Wells, which are open, certain types of dug wells and step wells, can be changed to protect the water with the means of housing over the well and periodic chemical treatment.

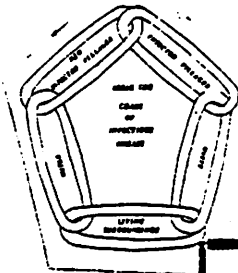
Deep or bored wells are by far the safest source of pure water and will be discussed in some detail to follow.

#### Several principles of wells are important to understand:

1. Water is purified or filtered by the fine, porous layer in the ground. This is called the water table.
2. The water table is sealed from outside contamination by a water-tight layer of earth.
3. Wells must be 50 to 400 feet from toilet facilities, and always uphill from them.
4. Protection of the well from contamination must be provided by either a housing or seal system and good drainage of standing water away from the well.

In short, clean drinking water is one of the very first needs which must be met upon entering a village, particularly since the auxiliary is likely to be seriously ill if safe water is not immediately available. Probably this will in the beginning involve temporary water treatment measures, but later, more reliable permanent sources should be developed. Details of constructing wells, and ways of making existing wells safe will be determined in each situation.

WATER SUPPLY



## WATER TESTING

**DANGER: ALL OPEN WATER SOURCES  
ARE CONSIDERED TO BE CONTAMINATED**

A simple kit called the Urotube will enable the auxiliary to test water in a village very early in the project.

**THE APPEARANCE OF WATER MEANS NOTHING  
IN DECIDING ITS SAFETY**

The Urotube may be obtained from Hoffman La Roche Pharmaceuticals Co. and distributors should be available in larger cities. They should be obtained before going to the village as they may be hard to find in some countries. Hopefully they may be obtained in kind.

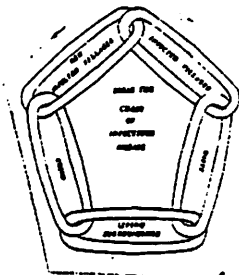
### The Following Steps Are Used

1. Dip the test stick into the water to be tested.
2. Place back in the bottle.
3. Keep warm for 1 to 2 days, either in a candle box or under a lightbulb.
4. Read the tube according to instructions with the kit.
5. At least 90 to 95% of all harmful bacteria can be detected with this method.
6. If water is contaminated, purify it and fix or improve the well.

If water is too full of debris or cloudy, it will probably be necessary to filter it first. A design for a container-filter is in this section and can provide enough water for drinking and cooking. Larger scale filters can be designed and built, but require a level of expertise and technology which cannot be easily covered in this text. If such large scale filtration proves essential it will have to be done in cooperation with experts in that arena to be sure of good quality water.

Remember, having a clean source of water is essential to establishing and maintaining good health in your village.



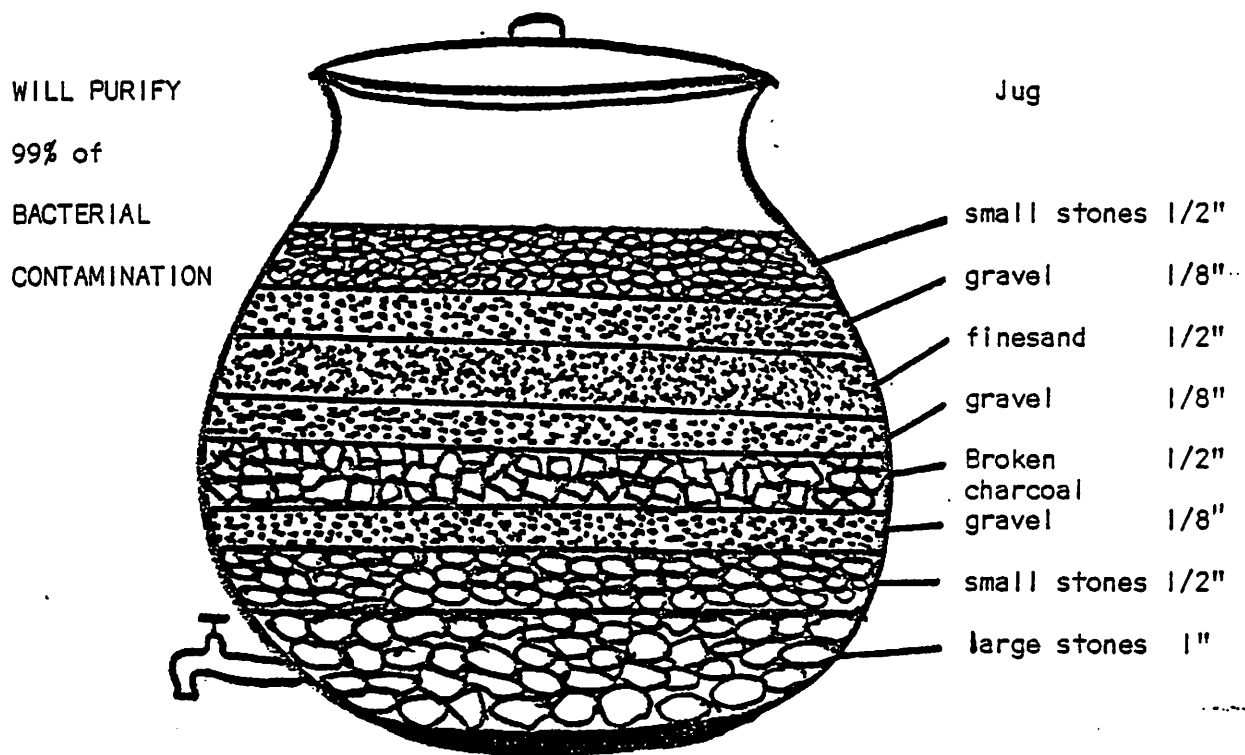


## PURIFICATION OF WATER

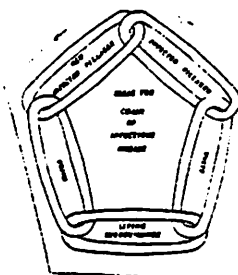
Water of uncertain purity may be made safe for drinking by the use of either filtration, chemical or heat treatment. If water is cloudy or not obtained directly from a tap, strain it through a clean cloth into a container to remove any sediment or floating matter, then purify it in one of three ways,

### Filtration

Large scale filtration is not too practical in a village setting, but can quickly be done by making a filtration pot as pictured:



Basically, there are layers of pebbles and sand arranged in a progressive fashion according to size. The water is poured in the top and as it filters downward the harmful particles are removed. It is then drained off by way of a faucet at the bottom for use. This filter is capable of removing nearly all of the bacteria out of the water (99 out of 100).



## CHEMICAL TREATMENT

Chemicals such as laundry bleach or tincture of iodine can be purchased at most local stores. The strength of the solution is usually listed on the table. By using the chart below you can decide how much chemical to add to a small amount of water to make it safe for drinking.

### Treat Water in a Large Tank Which Is Clean

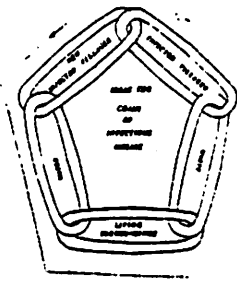
Clean container as follows:

1. Scrub the container with a stiff brush to remove slime, mold, etc.
2. Referring to table add the chemical in the suggested amount.
3. Allow chemical to sit in container for 12 hours.
4. This water will have too much chemical to drink so it will have to be drained out and the fresh water with the chemical at a safe level for drinking. After the container has been treated, the water can be treated periodically with the dose suggested.

### Steps In Treating Water With Chemicals

1. Add measured amount of chemical to water.
2. Mix thoroughly by stirring or shaking.
3. LET STAND FOR 30 MINUTES.
4. A slight chlorine odor should be detected in water, if not let the water stand another 15 minutes after repeating the chemical treatment.
5. This water is safe to use.  
A table is presented which gives measurements for treating larger volumes of water.

TREATMENT OF WATER FOR DRINKING	
<u>Available Chlorine</u>	<u>Drops to be Added/liter</u>
1%	10 - 20 drops
4-6%	2 - 4 drops
7-10%	1 - 2 drops
Unknown	10 - 20 drops
with Iodine	5 - 10 drops



## IMPROVING AN OPEN WELL

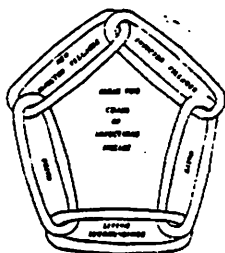
### Boiling

Water can be brought to a rapid bubbling boil for 15 minutes, be cooled and then used for drinking purposes. DO NOT SHORTEN THE BOILING TIME AS THIS IS A MINIMUM TIME NEEDED TO MAKE THE WATER SAFE.

After establishing an emergency safe water supply, attention should be directed to making existing water supplies safe or to constructing a well. Following are guidelines for improving existing wells:

### Steps to Improve an Open Well

1. Build a wall around the well which is one meter above the ground and three meters below the ground level. This will keep dirty water and trash from draining into the well.
2. Pour concrete or pack stones around the wall with a good slope so water drains away from the well.
3. Build a circular drain about five feet away from the wall and all the way around it so it will carry spilled water from the well and prevent standing water.
4. Build four little raised platforms around the well for people to rest their buckets on.
5. Where it is possible, buckets could be attached to the well so people don't carry the buckets back to their home.
6. Special housings can be constructed over open wells as shown below that allow for even better protection of the water. Because only one break in sanitary technique is all that is needed to contaminate the well, it would be best to treat the water at all times.

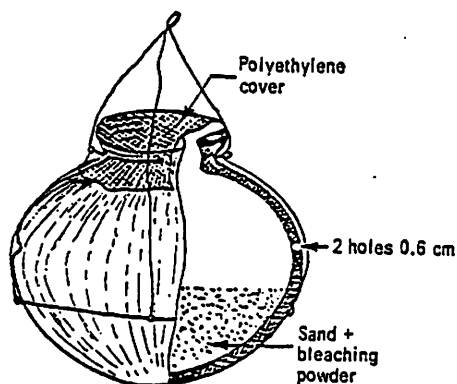


## TREATMENT OF WELL WATER

There are two ways to treat a well. (1) Pouring chemicals into the well 1 - 2 times a week, (2) Use of solution-feed appliances. See chart for amounts required to sterilize wells and the chart for amounts needed for safe drinking if you decide the direct pouring method is best. The solution-feeder method is below:

### Solution-Feed Appliances

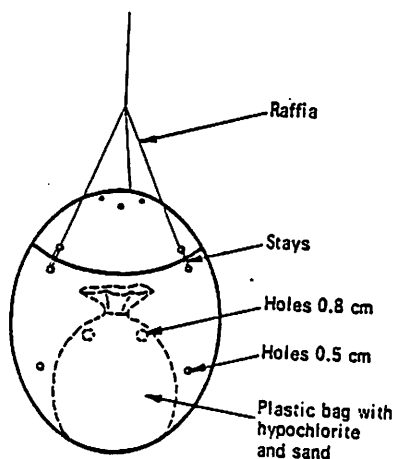
The following simple methods of hypochlorite chlorination using nonmechanical appliances may be easily adapted to suit small rural water supplies and public, private or domestic wells. Such disinfection arrangements may well be continued as a routine measure until long-term plans place community water supplies on a safe and satisfactory footing.



A Pot type

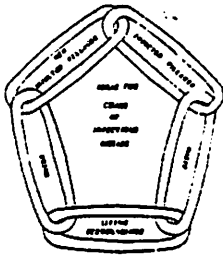
- (1) Pot Diffuser: A simple earthen pot filled with the appropriate moist mixture of bleaching powder and sand and suspended in the well about 1 m below the low-water level, would be suitable for a daily withdrawal rate of 900-1300 litres (40-60 persons) for about a week, with residual chlorine levels in the range of 0.2 - 0.8 mg/liter.

The pot should be of 12-15 litres capacity, with two 0.6 cm holes on opposite sides about half way down the pot. A moistened mixture of 1.5 kg of bleaching powder and 3 kg of coarse sand (size 1.4-1.6 mm) covered with polyethylene or any other film and the pot should be lowered in the well and suspended away from the points at which water is withdrawn. The addition of sodium hexameta phosphate (75g or 5% by weight of the bleaching powder) to the mixture helps to keep it soft and to prolong the period of chlorination. The figures concerning the size of the pot and the quantities of bleach powder and coarse sand are given only as rough indications. Pilot tests should be made in each area to ascertain the quantities required in relation to the different sizes of well and difference in withdrawal rate.



B Coconut type

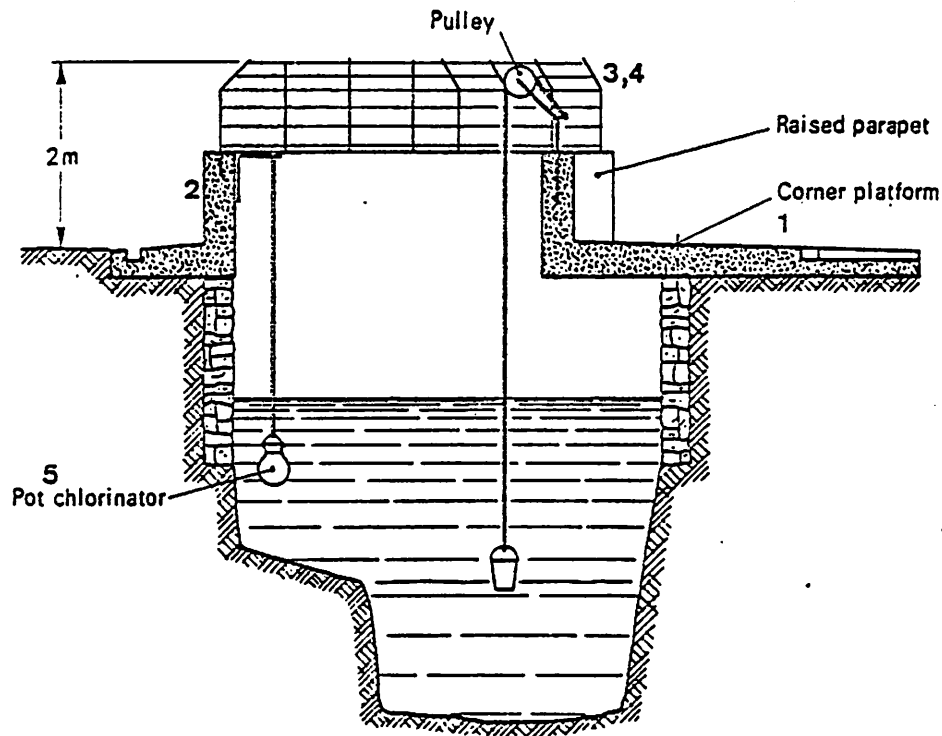
- (2) Coconut Shell Diffuser: Figure B shows the details of this simple device. A big coconut shell with the husk removed and bag containing a mixture of bleaching powder (about 2 kg) and clean sand in equal proportions is placed inside the lower part of the shell (the mouth of the bag being closed with a rubber band) and the two parts are then fastened together by rubber bands passed through stapes at three peripheral points. Three



## TREATMENT OF WELL WATER (Cont'd)

holes (each 0.5 cm in diameter) burnt through the container body with a red hot wire just below the center, and two holes (0.8 cm in diameter) punched in the middle of the plastic bag, enable the disinfectant to pass out through the shell into the body of the water to be disinfected. The shell chlorinator is hung by 3 cords of raffia passed through 3 staples, about 30 cm below the water surface. This device can disinfect small domestic wells with daily withdrawal rates of about 90 liters for about three weeks giving a residual chlorine level of about 0.2 - 0.1 mg/liter.

When the residual falls below 0.1 mg/liter the plastic bag should be refilled with fresh chemicals or the whole unit may be replaced if necessary.



## TEST FOR CHLORINE DEMAND

Free residual chlorination calls for incremented applications of chlorine to ascertain the "breakpoint". The essentials of a chlorine-demand test are described below. More complete details can be obtained from standard works on the subject (see, for example Cox, 1964, pp. 324-325).

(1) Measure 100-ml amounts of the water sample into each of 6 bottles.

(2) Add 0.5 ml, 1.0 ml, 1.5 ml, 2.0 ml, 2.5 ml, and 3.0 ml of a standard chlorine solution of concentration 100 mg/litre to the 6 bottles and mix thoroughly. The applied doses of chlorine are thus 0.5, 1.0, 1.5, 2.0, 2.5, and 3.0 mg/litre.

(3) Allow the 6 chlorinated bottles to stand for 20 minutes or for a time equal to the contact time between the chlorine and water at the control point.

(4) At the end of this period, ascertain the amount and kind of residual chlorine in each bottle by means of the OTA test (see Annex 7). The lowest dose should normally show no residual chlorine while the highest should contain a residue well above the amount required for plant operation.

(5) If the amounts of chlorine solution added do not produce these results, a different range should be chosen and added to fresh portions of the water sample until the desired results are obtained.

The chlorine-demand test indicates the amount of chlorine that is necessary to produce given levels of residual chlorine in a particular water after a definite period of contact.

Both the applied dose and the resulting concentration of residual chlorine (by the OTA method) should be recorded for each test.

## AMOUNTS OF CHEMICALS NEEDED TO DISINFECT WATER FOR DRINKING <sup>a</sup>

Water (m <sup>3</sup> )	Bleaching powder (25-35%) (g)	High strength calcium hypochlorite (70%) (g)	Liquid bleach (5% sodium hypochlorite) (ml)
1	2.3	1	14
1.2	3	1.2	17
1.5	3.5	1.5	21
2	5	2	28
2.5	6	2.5	35
3	7	3	42
4	9	4	56
5	12	5	70
6	14	6	84
7	16	7	98
8	19	8	110
10	23	10	140
12	28	12	170
15	35	15	210
20	50	20	280
30	70	30	420
40	90	40	560
50	120	50	700
60	140	60	840
70	160	70	980
80	190	80	1 100
100	230	100	1 400
120	280	120	1 700
150	350	150	2 100
200	470	200	2 800
250	580	250	3 500
300	700	300	4 200
400	940	400	5 600
500	1 170	500	7 000

<sup>a</sup> Approximate dose = 0.7 mg of applied chlorine per litre of water.

### Instructions for chlorinating drinking-water

(1) Use one of the chemicals listed in the table and choose the amount according to the quantity of water in the distribution tank, cistern, or tanker.

(2) Dissolve the chemicals first in a bucket of water (not more than about 100 g of calcium hypochlorite or bleaching powder in one bucket of water) and pour the solution into the tank. If possible, agitate the water to ensure good mixing.

(3) This chlorination procedure should be repeated as soon as the level of residual chlorine in the water drops below 0.2 mg per litre.

# AMOUNTS OF CHEMICALS REQUIRED FOR A STRONG CHLORINE SOLUTION<sup>a</sup> TO STERILIZE WELLS, RESERVOIRS, TANKERS, ETC., PRIOR TO BRINGING THEM INTO SERVICE

Water (m <sup>3</sup> )	Bleaching powder (25-35%) (g)	High strength calcium hypochlorite (70%) (g)	Liquid bleach (5% sodium hypochlorite) (ml)
0.1	10	4.3	60
0.12	12	5.2	72
0.15	15	6.5	90
0.2	20	8.6	120
0.25	25	11	150
0.3	30	13	180
0.4	40	17	240
0.5	50	22	300
0.6	60	26	360
0.7	70	30	420
0.8	80	34	480
1	100	43	600
1.2	120	52	720
1.5	150	65	900
2	200	86	1 200
2.5	250	110	1 500
3	300	130	1 800
4	400	170	2 400
5	500	220	3 000
6	600	260	3 600
7	700	300	4 200
8	800	340	4 800
10	1 000	430	6 000
12	1 200	520	7 200
15	1 500	650	9 000
20	2 000	860	12 000
30	3 000	1 300	18 000
40	4 000	1 700	24 000
50	5 000	2 200	30 000
60	6 000	2 600	
70	7 000	3 000	
80	8 000	3 400	
100	10 000	4 300	
120	12 000	5 200	
150	15 000	6 500	
200	20 000	8 600	
250	25 000	11 000	
300	30 000	13 000	
400	40 000	17 000	
500	50 000	22 000	

<sup>a</sup> Approximately 30 mg of applied chlorine per litre of water. This is *not suitable* for drinking purposes.

## Instructions for chlorinating with strong chlorine solutions

(1) Stop supplying the public with water from the source (well, reservoir, etc.) that is to be disinfected. For reservoirs and tankers, clean the inside thoroughly by brushing and flushing.

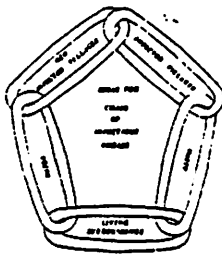
(2) Use one of the chemicals listed in the table. The amount of chemical should correspond to the maximum capacity of the reservoir (tanker).

(3) First dissolve the chemicals in a bucket (not more than about 100 g of calcium hypochlorite or bleaching powder in one bucket of water).

(4) For wells, pour the solution (one or more bucketsful one after another) into the well. If possible, agitate the water to ensure good mixing. For reservoirs and tankers, pour the solution into the tank when it is half full of water and top it up completely afterwards.

(5) Leave the strongly chlorinated water for at least 12 hours in the well or tank. This water should not be used for drinking purposes.

(6) For wells, pump the strongly chlorinated water from the well and reject it until the residual chlorine level is below 0.7 mg per litre of water. For tanks, empty the tank completely and let the water run to waste. Then restart normal operations and supply the public.



## CONSTRUCTION OF WELLS

If adequate clean water is not available in your region it will be essential to build either a filtration system for treatment of standing water or to construct a well. The best choice for a community water supply in small villages is a well.

Community wells must be designed to deliver an adequate volume of water over a 24 hour period and be readily available so that they receive a maximum of use.

Rough estimates of community water needs can be calculated using the table below:

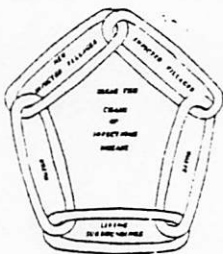
WATER NEEDED	
ITEM	GAL/DAY
Person	30-70
Milk Cow	35
Cow, horse, goat	3-7
One hundred turkeys	7-18
One hundred chickens	3-7
Hog	2-4
Sheep	2
Irrigate 1000 square feet	700 gallons

Water is in a layer called the aquifer. The aquifer is loose sand and soil that holds water much like a sponge. This sand is located between water tight layers which act as seals and prevent the water from getting contaminated. If the water tight layer is of rigid material, such as bed-rock, it is possible to get a crack or leak in the seal and leave the water layer at risk for contamination, particularly if waste disposal is done incorrectly.

To build a well, then, it is only necessary to make a hole down through the sealing layers to the aquifer and then provide a means of pumping the water out and preventing contamination with a seal. Usually the water table is no more than fifty feet below the surface and this depth is easily obtained, even with hand tools. In arid regions it may be necessary to dig many hundreds of feet. Also, if soil is quite hard or if there are many rock formations in your area the technical problems of digging a well may force you to consider a water treatment program of some water source which is open. Below is a chart which describes drilling techniques and which soil conditions they are best suited for.

Type of well	Depth	diameter	geologic formation
DUG	0-50 ft	3-20 ft	<u>suitable</u> - clay, silt, sand gravel, cemented gravel, boulders, soft sandstone, soft limestone <u>unsuitable</u> - dense igneous rock
BORED	0-100 ft	2-30 in.	<u>suitable</u> - clay, silt, sand, gravel, boulders less than well diameter, soft sandstone and soft limestone <u>unsuitable</u> - dense igneous rock
DRIVEN	0-50 ft	1½-2 in.	<u>suitable</u> - clay, silt, sand, fine gravel, sandstone in thin layers <u>unsuitable</u> - cemented gravel, boulders, limestone

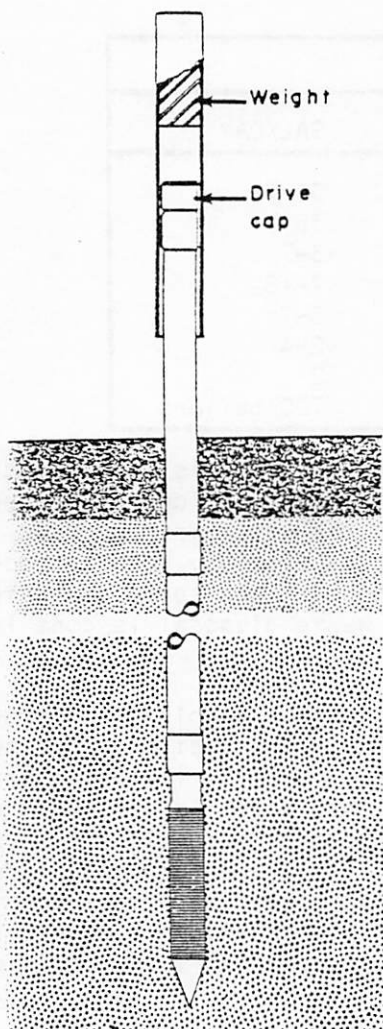




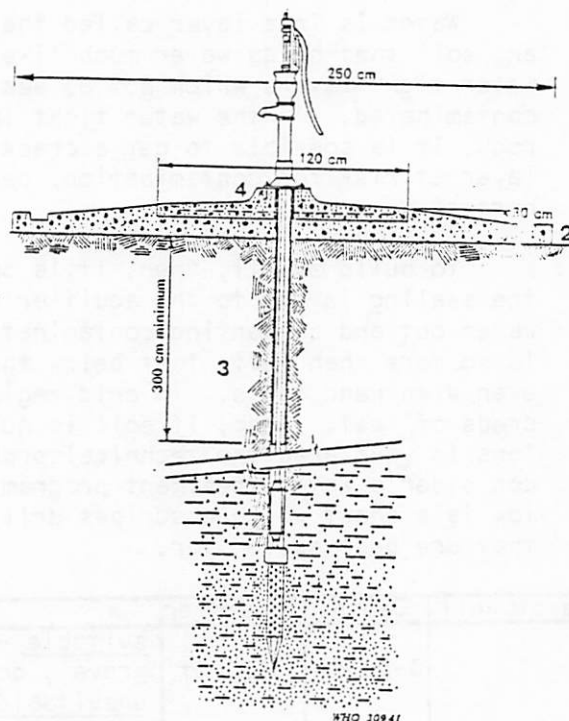
## CONSTRUCTION OF WELLS (Cont'd)

Getting Down to the Aquifer Layer may be Accomplished by Several Methods:

1. Digging with shovels and picks, etc., Usually about 3 feet in diameter and to a depth of 50 feet. A housing and provision for sealing must be provided.
2. Driven (see diagram for apparatus) Usually about 2 inches in diameter and 50 feet in depth. In this type of well the special tip is attached to a length of pipe and then driven into the ground like a large nail. Lengths of pipe are added as more depth is obtained.
3. Bored wells can be drilled with special equipment or can be done with hand augers. These can be dug about eight inches in diameter and to a depth of 100 feet. As in the driven well, lengths of pipe are added as the auger bores deeper. As the hole is being dug a casing pipe needs to be placed in the upper portions of the hole to a depth of about 15 feet to help provide a seal against contamination. In addition, the casing pipe should extend some 2-3 feet above ground to allow for fitting to the pump.



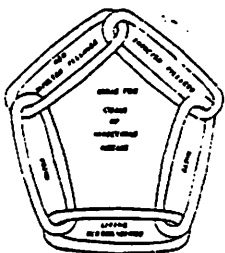
TUBE WELL \*



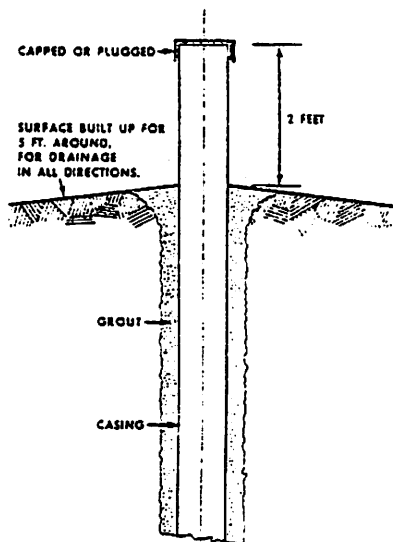
\* Reproduced from Wagner & Lanoix (1959)

### Check list

1. Is the nearby area free from liquid wastes and privies ?
2. Is there a watertight concrete apron and is drainage provided ?
3. Is there watertight tubing for 3 m below ground level ?
4. Is the eduction pipe to pump sealed in apron at exit ?



## CONSTRUCTION OF WELLS (Cont'd)



### Sealing the Well Is Done as Follows:

1. A sleeve of pipe casing is placed in the upper portion of the bore.
2. Packing or grout (fine cement) is placed around the casing.
3. A slab is poured around the top of the well.
4. Dirt is piled around the pump to cause drainage of water away from the well.

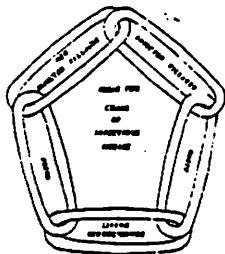
After water has been reached and the well properly sealed, a means of getting it to the community must be built. Several types of pumps can be used, including hand and power types. If the well is to provide water for a large number of people, it will be necessary to pump the water into a central storage tank so that enough water is available to the community.

In general, this will require the following:

1. Obtaining a pump which is capable of filling the storage tank in a one day period.
2. A piping system which can carry enough water to the storage tank.
3. A storage tank which will hold enough water to meet the needs of the village.

Before placing into use, the system should be treated with chemicals to remove any contamination that may have occurred during construction. Instructions for cleaning the tank were mentioned in an earlier section.

Pipes may be flushed backwards with the tank cleanout solution that is to be dumped after the disinfection.



## CONSTRUCTION OF WELLS (Cont'd)

### Maintenance Check List and Repairs

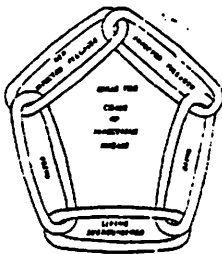
If water from a bore well or sealed well is contaminated there must be a leak in the well system which is permitting waste to enter the well. The following is a check list for trouble-shooting a well.

1. Check for excess water collection around the base of the pump.
2. Make sure that proper drainage is supplied so that excess water is either used to irrigate gardens or is allowed to soak into the ground at least 50 feet away. (See illustration for soakage pit for handpumps).
3. Check to see that drain hole is clean of trash.
4. Make sure that there is no trash or refuse around pump
5. Check for mechanical trouble in pump:
  - Weak flow
  - Pump loose on base
  - Pumping difficult
  - Handle stays down after release (models vary in way they function)
  - Loose handle
6. Make sure that no toilet or dump facilities are too close to the well.

WELL WATER MUST BE CHECKED PERIODICALLY TO MAKE SURE THAT IT HAS NOT BEEN CONTAMINATED

## RESERVOIRS

In circumstances where wells cannot be dug it may be necessary to filter and or chemically treat water from lakes or streams. Formulas for the correct amount of disinfectant have been given in previous sections. Most likely you would want to place water in a storage tank and treat in bulk, making sure that the level of chemicals is always in the correct range.



## TOILETS

### COLLECTION AND DISPOSAL OF HUMAN WASTE

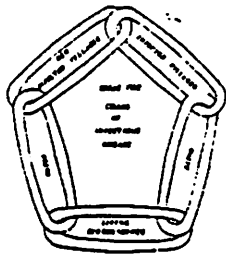
Sanitary handling of human waste is essential to the control of infectious diseases. The presence of open stool or the use of fresh stool (no treatment) for fertilizer is sure to cause more diarrhea and parasites. It is thus essential that sanitary toilets be built and that treatment of waste used for fertilizer be started.

**ISOLATE STOOL OR FECAL WASTE FROM HUMANS AND TREAT ALL WASTE THAT WILL COME IN CONTACT WITH HUMANS.**

#### General assumptions regarding the sanitary handling of stool:

1. Stool should not come into contact with humans when fresh
2. Toilets must be downhill from sources of drinking water
3. Any toilet facility should be at least 20 feet walking distance from a home and 50 - 100 feet from existing water supplies. Never locate in an area that floods.
4. Pit privy type toilets and septic toilets cannot be used in areas where there is much bedrock formation as these layers of rock may have cracks or faults which connect directly with the water table and thus cause contamination of the wells.
5. Means must be provided for controlling flies so that they do not come in contact with stool and then spread germs by landing on food and people. In areas where fecal material is used for fertilizer, storage tanks must be provided to allow for the treatment of stool to reduce the concentration of harmful bacteria and parasite eggs and cysts before use.

Note: The Village Technology Handbook (#10 on Bibliography) is by far the most complete and helpful text on sanitation. It is also very useful in agriculture, construction and home improvements.



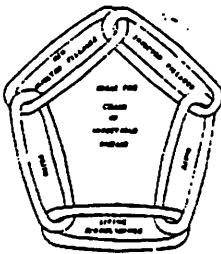
## TOILETS

Several types of toilets can easily be constructed at a low cost. The type is determined by the local conditions for use. The type of toilet, and suitable conditions for use are described in the following section.

### Steps for Building a Basic Toilet

The basic toilet is designed as an emergency or temporary means of waste disposal.

1. Select a location that is 20 walking feet from any house entrance and 50 - 100 feet from a water supply. The site should also be downhill from water supplies and should not be in an area that floods.
2. Dig a pit one meter square and 2 to 3 meters in depth. Stack the dirt nearby.
3. Line the pit with boards or stones, as in pit privy, so it will not cave in. (see diagram)
4. Place boards across the pit, leaving a slot you can easily straddle.
5. Pack earth over the boards making a mound that slopes away from the slot.
6. Place 2 good flat stones for foot rests.
7. Build a privacy wall or hedge, overlapping walls that block the view are better than a hinged door.
8. Make a lid (with a handle) to cover the hole when not in use to keep out flies.
9. Construct handle for lid that is 3 feet long (like broom handle) to maintain cleanliness and thus assure use.
10. Every few days throw a little dirt in to keep down the odor and flies.
11. When the village gets far enough along to build better toilets, this should be filled in and a fruit bearing tree planted near the pit.

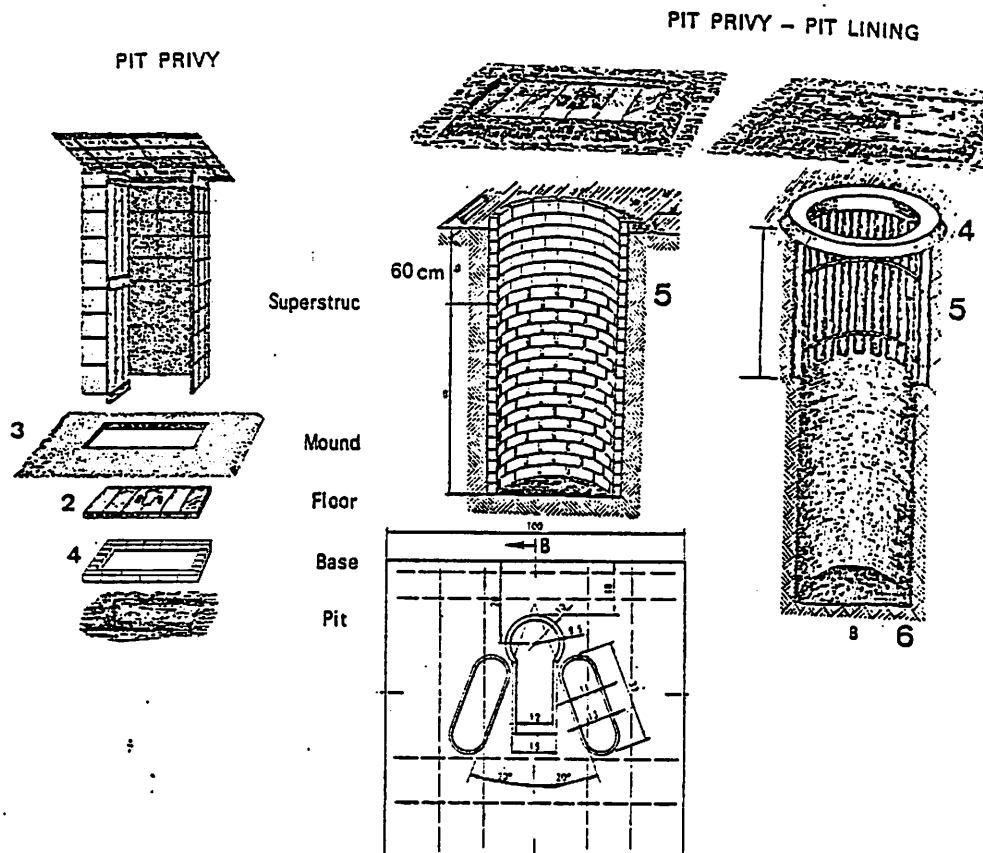


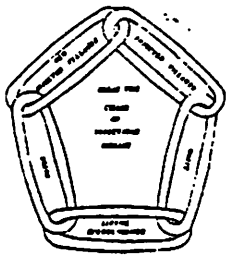
## PIT PRIVY

1. A housing structure that will keep out rain and light and flies. Flies will not go into a darkened space. A door that will open and close and provide a good seal is essential.
2. A floor, made of either wood or cast concrete with a seat hole is directly underneath the housing structure.
3. The floor rests on a base which supplies a seal around the pit to prevent migration of larvae and maggots.
4. The pit can be dug or bored, but preferably dug. It should be one meter square and 2 to 3 meters in depth. It should be reinforced with wood or bricks to prevent collapse.
5. A mound should be piled around the toilet to force drainage of water away from the pit.

As the toilet is used, dirt from the pit is regularly dumped in the pit to cover the stool. When the pit is full, the privy must be moved to a new location. A cup of kerosene may be added to the toilet once a week to reduce flies and odors.

This is the most simple toilet facility and consists of a large hole, with a housing over the hole. The pit is made large enough to last a family of four about three years, at which time it becomes full and must be moved.



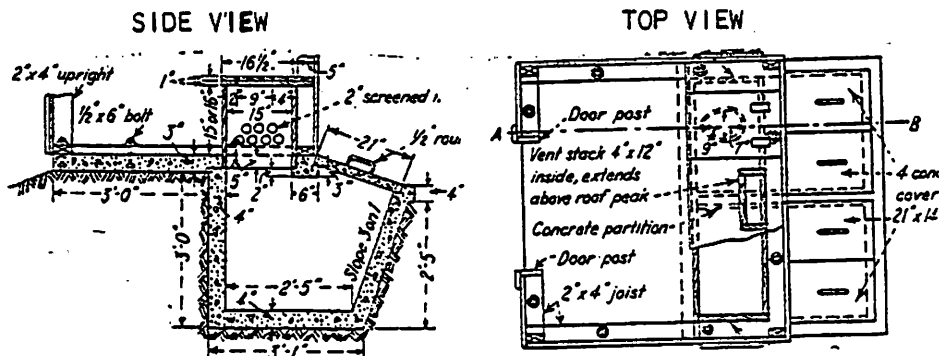


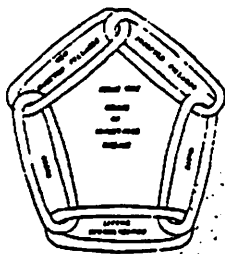
## STORAGE TANK OR GHANDI TOILET

Storage tanks are very good in regions where stool is used for fertilizer or in regions where pit privys are unsafe. Storage tanks can be used and constructed for above ground use. The principle of storage tanks is that stool which is aged significantly decreases the number of harmful bacteria and parasite cysts and eggs. Stool is stored for a period of four weeks to several months. After aging, the stool can be removed from the tank, dried and then used for fertilizer. The aging process makes the stool a better fertilizer as well as making it safe to handle.

1. A housing with all the requirements as mentioned for a pit privy
2. Floor with a seat hole
3. A pipe for directing waste into one of the two tanks selectively.
4. A water tight tank about four foot on all sides. (two of these tanks side by side would be best). Tanks can be made of concrete or brick.
5. If two tanks are used a two way valve for controlling the direction of the flow of waste to the tanks is desired.

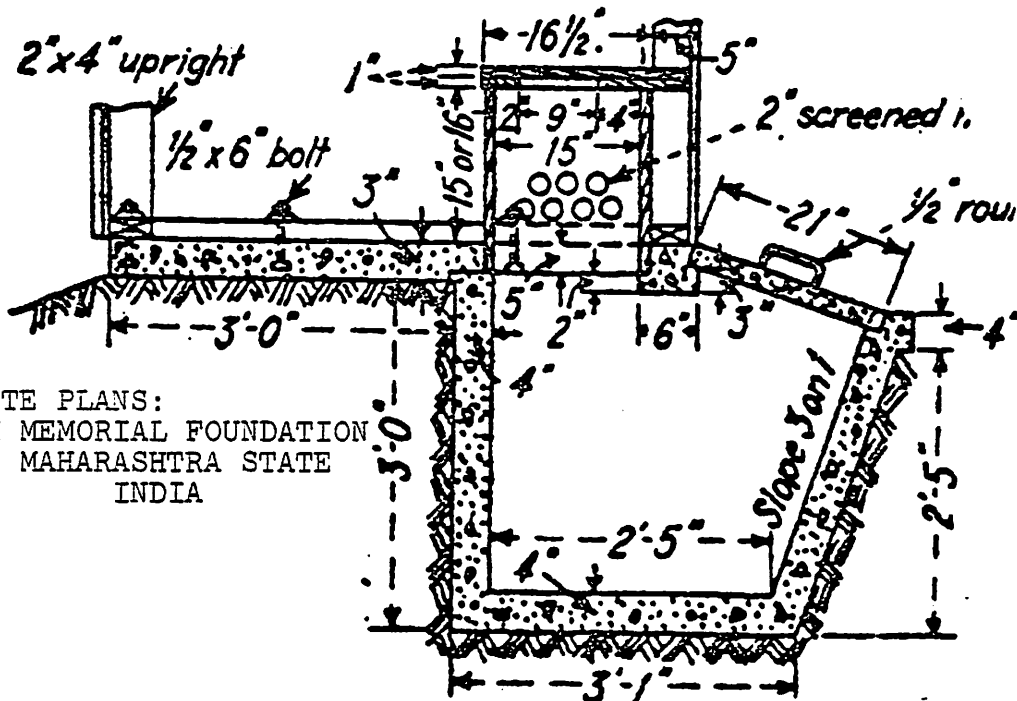
In using this toilet, one tank is filled all the way and then the valve is switched to the other tank. Waste material is left in the filled tank at least one month, and then removed and dried. For a family of four, it should take about six months to fill a tank. In one year, enough fertilizer should be produced to cover two acres of land.





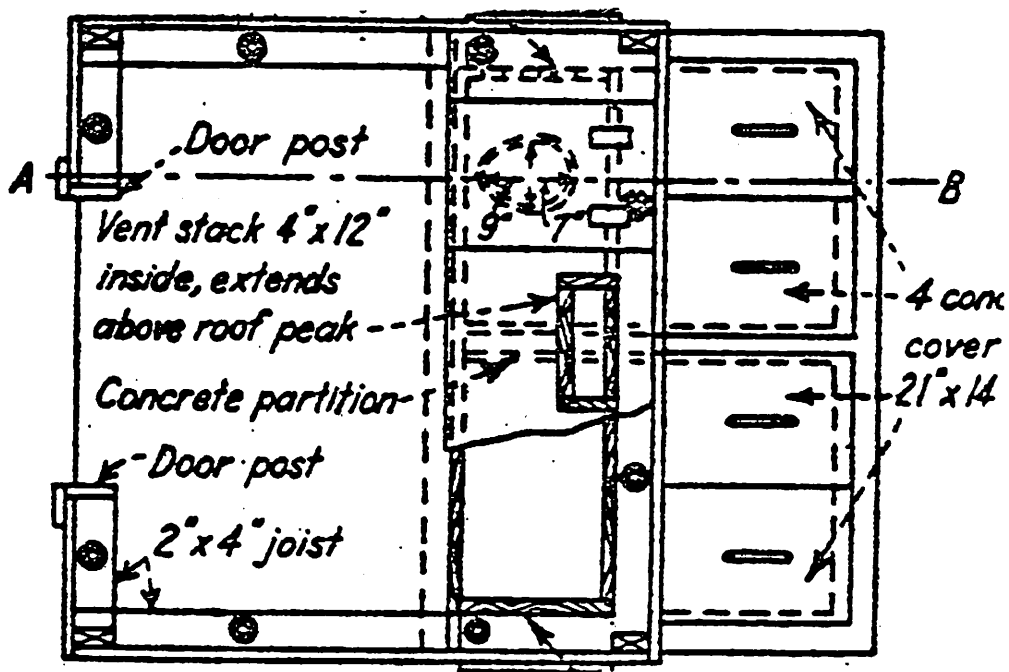
# GHANDI TOILET

## SIDE VIEW

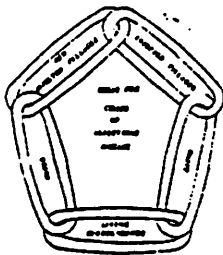


COMPLETE PLANS:  
GHANDI MEMORIAL FOUNDATION  
POONA, MAHARASHTRA STATE  
INDIA

## TOP VIEW







## METHANE GAS PRODUCTION TOILET

(Biogas Plant Scheme)

In regions where fuel is in short supply, it is possible to make methane gas from fecal material. See diagram beginning of next page.

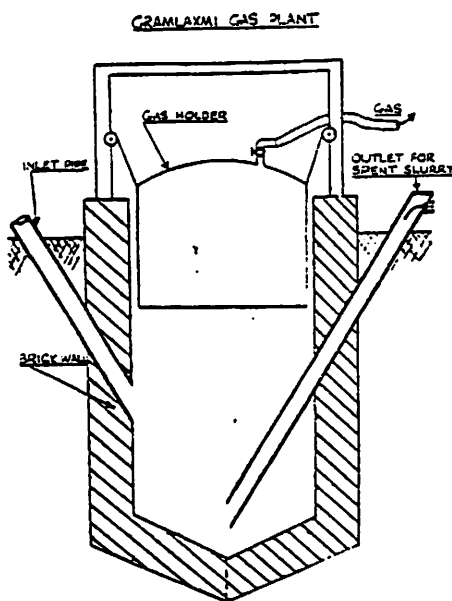
### These are the Following Basic Parts:

1. Storage tank with provision for putting in and removing waste.
2. A collection device which floats in the waste and traps the gas.

Attached to the collection device is a pipe or hose for distributing the gas to homes.

Collection devices are sold commercially in India and some other countries. Collection bells can be made out of fiberglass or concrete on wire mesh (ferrocement) if they are not available or cost is too high.

3. The villager must provide a hole for the installation of the device. This system can serve several homes and thus help share the cost of installation, which is about \$500. Cost analysis probably doesn't justify the purchase of a gas producing toilet on just economic factors.



Good sanitation is totally dependant on having good toilets for disposal or treatment of waste. If this link in the chain of spread of infectious disease is broken a signifigant decrease in the incidence of infectious diseases will be realized.

# METHANE GAS PLANT CONSTRUCTION

	CONTENTS	PAGE
	Contents and Description	1
	10m <sup>3</sup> Tank (Rural Type)	2
	50m <sup>3</sup> Tank (Community Type)	3
	100m <sup>3</sup> Tank (Community Type)	4
	100m <sup>3</sup> Tank with Scum Breaker	5
	Scum Breaker	6

## MARSH GAS IN BRIEF

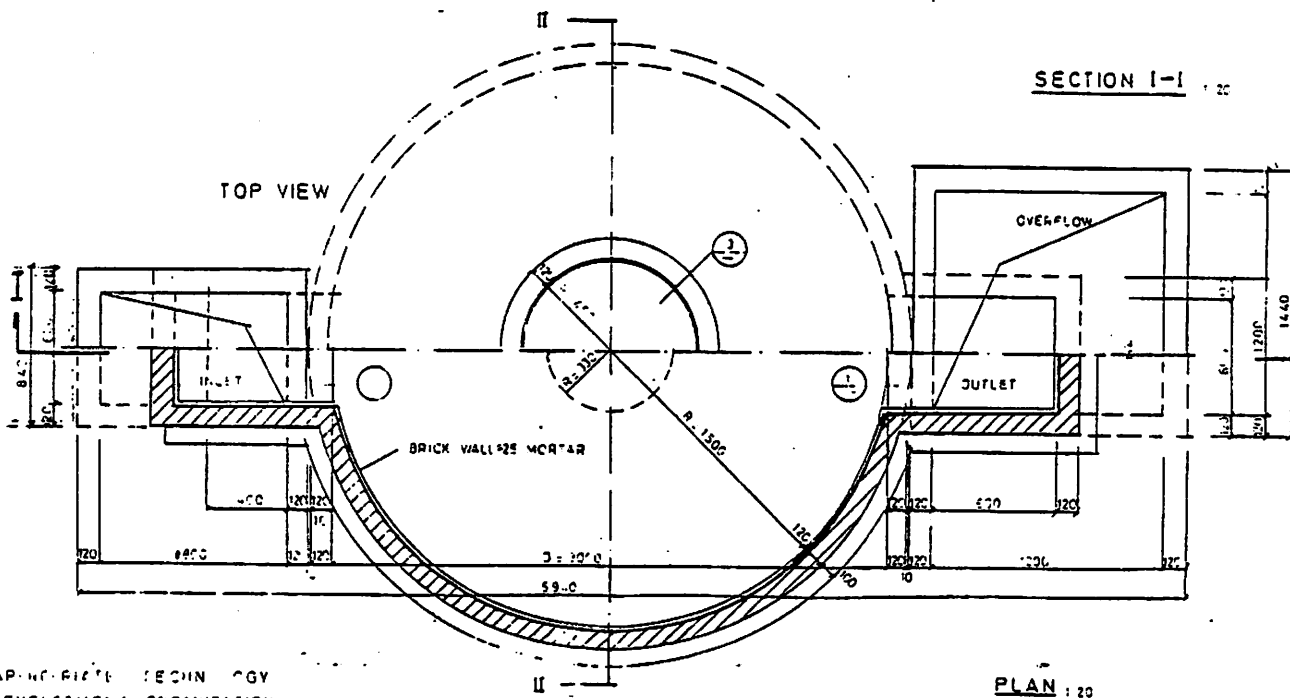
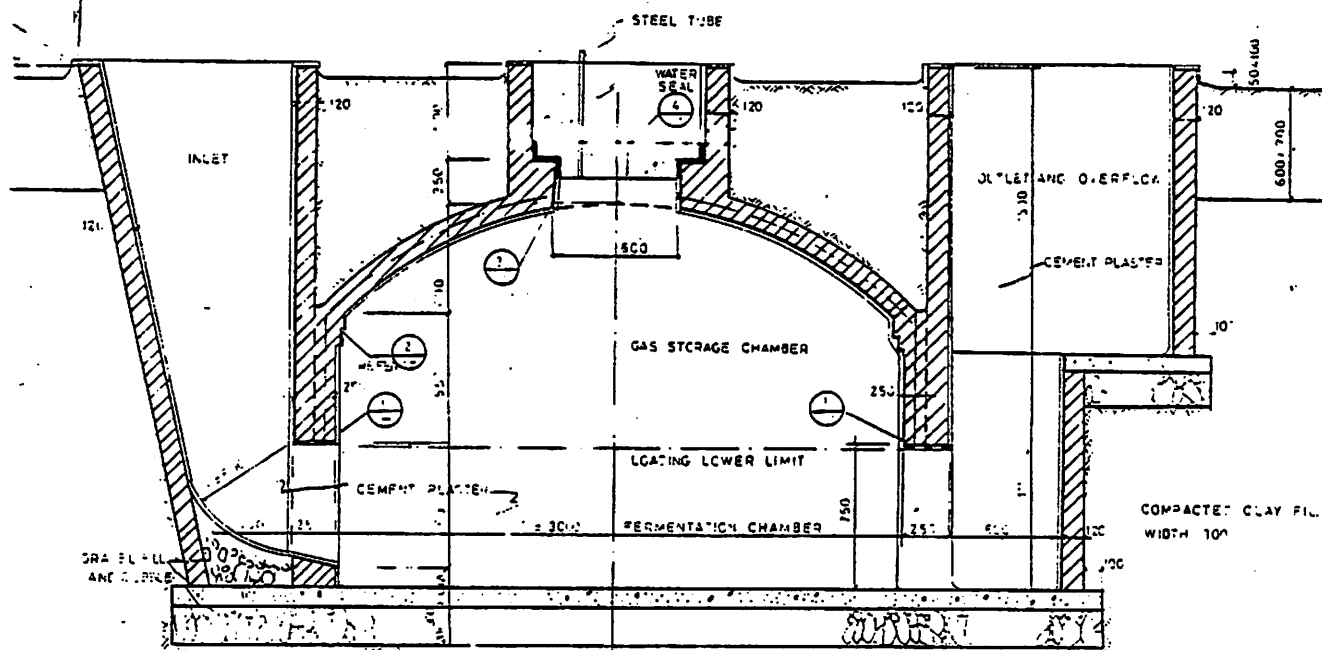
- In countryside, the marsh gas produced from human excrements, manures, straws, grasses, stems and leaves etc. is of so much value that the problem of fuel and energy source is solved to a certain degree, moreover, fertilizing efficiency is increased, and public sanitation improved. Good result depends mainly upon suitable proportion of raw materials, reasonable construction, and scientific control.
1. Proportioning of fresh materials.
- Human excrements, manures, straws, grasses stems and leaves, rubbish, wastewater, sludge etc. and all organic materials can be used as raw materials. Proper ratio of carbon to nitrogen is about 20:1 ~ 25:1. Mixture of more fibrous materials with some organic matters rich in nitrogen. It is a common practice to use (only as reference).  
Human excrements 10% - manure, straws, leaves etc. 40% - water 50%.  
The total water content should be about 90%.
  - A batch of fresh materials added in about 10-15 days constantly.
2. CONDITIONS FOR FERMENTATION
- Lack of oxygen
  - Liquid temperature 10°C at least, and suitable temp. above 25°C
  - pH 7-8.5
3. BASIC DATA
- One cubic meter of fermentation liquid produces avg 0.15~0.2 m<sup>3</sup> of marsh gas daily.
  - One cubic meter of marsh gas produces heat about 5500 Kcal.
  - The effective volume of the interior space of tank itself is esteemed at 1.5~2 m<sup>3</sup> for each member of a family in cooking and illumination.
4. FERMENTED MANURE
- Used directly, or stored in another covered pit ready for use.
  - Owing to fermentation in closed condition, the ammoniacal nitrogen content is somewhat increased.
  - The pathogenic bacteria and parasitic eggs (ova) settled, and finally killed after fermentation.
5. MAINTENANCE
- Add in fresh materials constantly and regularly, and take out equal amount of old.
  - Stir the liquid frequently. For small tanks, it can be done by taking out fermented liquid from outlet, and pouring violently again into inlet to stir up the liquid inside, or by stirring with some simple tools to break the scum. Bigger tanks can be stirred manually or mechanically by some devices.
  - Cleaning the tank once a year, the concrete cover must be removed for air circulation before man entering in to avoid intoxication and suffocation.
  - Keep warm. Better to build tanks at sunny sites. Tanks and outlets covered with straws and earth in winter or sheltered. It is recommended to construct tanks directly under latrines or sheds. Add in cold season some heat-producing fermenting materials, e.g. manures of domestic animals, fowls and silkworm, wine lees, and nays soaked through with water beforehand.
  - Explosion and fire hazard: keep fire away from tanks and tubes. The tanks should be tested for leakproof and airtightness before use. So must be tubes.

## CONSTRUCTION NOTES

1. BUILDING MATERIALS REQUIRED
- 100 bricks, Burned-clay bricks 240 X 115 X 53mm in size, compressive strength no less than 100 kg/cm<sup>2</sup>.
  - A 3 Steel, yield point 2400 kg/cm<sup>2</sup>.
  - 400 cement: 28-day compressive strength of a cube of 7.07 cm<sup>3</sup> (portland cement to standard sand 1:3) no less than 400 kg/cm<sup>2</sup>.
  - 25 mortar: 28-day compressive strength of a cube of 7.07 cm<sup>3</sup> no less than 25 kg/cm<sup>2</sup>.  
Proportioning by volume:  
400 cement: lime putty: coarse sand 1:1:9
  - 50 mortar: compressive strength no less than 50 kg/cm<sup>2</sup>.  
Proportioning by volume:  
400 cement: lime putty: coarse sand 1:0.7:6.5
  - 200 concrete: 28-day compressive strength of a cube of 20 cm<sup>3</sup> no less than 200 kg/cm<sup>2</sup>.
  - 100 concrete: 28-day compressive strength of a cube of 20 cm<sup>3</sup> no less than 100 kg/cm<sup>2</sup>.
2. All vertical and horizontal joints of masonry should be completely filled with mortar.  
Brickshells should first be drawn to full scale, and then constructed with formwork. The shell is a segment of sphere.
3. Footing should be constructed soon after excavation, and should be laid on original undisturbed ground with unit bearing value no less than 12 kg/cm<sup>2</sup>.
4. Underground Water
- Tanks preferably built above underground water level; otherwise, the highest underground water level should not exceed the underside of footing by 500 mm.
  - Tanks preferably constructed in low-water level seasons, otherwise steps should be taken to lower it.
5. IT IS DESIRED TO BUILD TANKS UNDER TECHNIQUE GUIDE, FITTING LOCAL CONDITIONS, AND USING LOCAL MATERIALS.

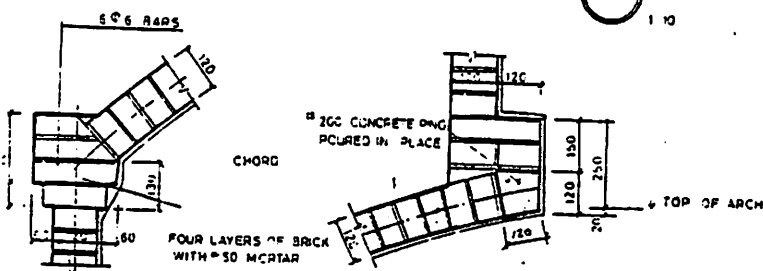
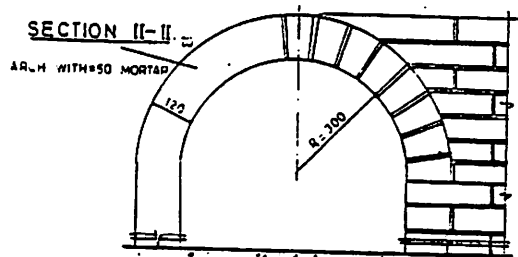
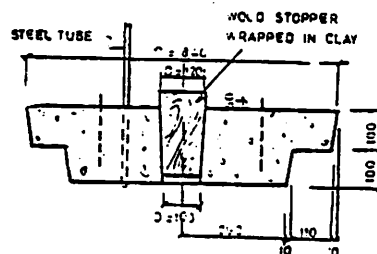
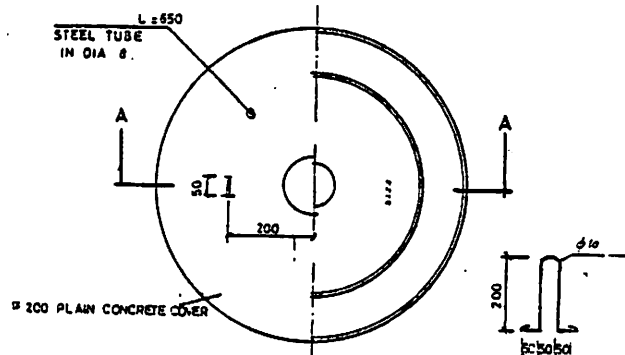
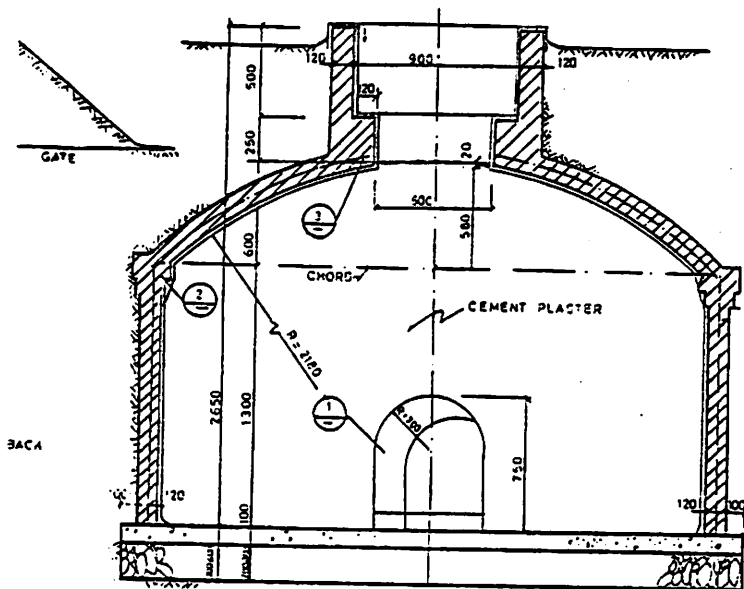
Item	TANKS-Digesters for Marsh Gas
	75-014
CONTENTS and DESCRIPTIONS	
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**METHANE GAS PLANT CONSTRUCTION (cont.)**



APPROPRIATE TECHNOLOGY  
DEVELOPMENT ORGANIZATION  
WITH COOPERATION OF  
TECHNOS- REPUBLIC OF CHINA

# METHANE GAS PLANT CONSTRUCTION (cont.)



## NOTES

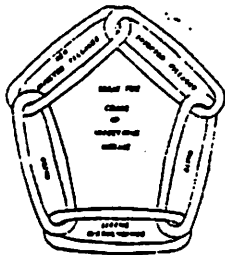
1. FOOTING AND FLOORING (SEE P. 1)  
FLOOR #100 PLAIN CONCRETE THICK 100 TROWELLED.  
FILL GRAVELS PUT IN PLACE BY HAND GROUTED WITH  
THIN CLAY PASTE (1 PART OF LIME 4 PART OF CLAY)  
TOTAL THICKNESS 200/300 SUBGRADE FIRM GROUND
2. MASONRY (SEE P. 1)  
BICO BURNED CLAY BRICK #25 MORTAR (#50 MORTAR  
APPLIED LOCALLY. ALL VERTICAL AND HORIZONTAL  
JOINTS SHOULD BE COMPLETELY FILLED WITH MORTAR  
SO AS TO ENSURE LEAKPROOF AND AIRTIGHTNESS
3. PLASTERING  
BASE COAT 1:2 CEMENT-SAND PLASTER (BY VOLUME)  
THICK 10 APPLIED TWICE EACH TIME 5 SCRATCHED  
AFTER SETTING)  
MEDIUM COAT 1:2 CEMENT-SAND PLASTER THICK 5  
FINISH COAT 1:1 CEMENT-SAND PLASTER THICK 5  
APPLIED TWICE 2 THEN 3 TROWELLED VIGOROUSLY)  
BRUSH WITH THIN CEMENT PASTE THREE TIME IN  
GAS STORAGE CHAMBER IN ORDER TO BE AIRTIGHT.

All measurements in mm

300 mm = 1 ft

25 = 1 inch

ITEM	TANKS DIGESTERS MARSH GAS
10 M TANK (HOME TYPE)	75-104
scale 1:20	2
1:10	5
UNIT MM	75 6



## LIVING SURROUNDINGS

Several factors in the home and the outside living surroundings can be controlled to help reduce the spread of infectious disease. In changing things in the living surroundings we try to accomplish the following goals:

1. Reduce the reservoir of infecting agents in the living surroundings.
2. Reduce the number of intermediate hosts; rats, mosquitos, flies.

This can be accomplished by:

Closed drainage of standing water

Disposal of garbage and trash

Pest and rodent control

Changes in housing design to allow for good ventilation, lighting and regular cleaning

Personal cleanliness habits

**REDUCE THE RESERVOIR OF INFECTING AGENTS  
AND DECREASE THE RATE OF SICKNESS**

### Drainage of Standing Water

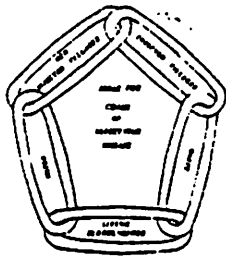
Water which is stagnant acts as a breeding ground for mosquitos and other insects. As mentioned earlier it can also be the source of well contamination.

The type of drainage system needed generally depends upon the volume of water which needs to be removed. In dry regions where there is little problem, except for water that is disposed of after laundry or cooking, a soakage pit is probably sufficient.

A Soakage Pit is Made as Follows:

1. Dig a hole that is one meter square
2. Take rocks which are varied in size from fist or grapefruit to small pebbles. Fill the hole with large stones at bottom, then fill in layers progressing to smaller and smaller sizes. At the top, cover with sand or loose soil. Plant a fruit tree next to the pit for food source in dry regions. See diagram of soakage pit for handpumps on following page.





## DRAINAGE (Cont'd)

### Construction of Drainage Ditches:

1. It should be 3 to 4 foot in depth.
2. About 30 inches in width.
3. The slope of the sides should be  $1\frac{1}{2}$  to 1.
4. Supplies and Equipment
  - a. A batch concrete mixer that can mix  $3\frac{1}{2}$  cubic feet of concrete at a time
  - b. Two 12 foot 2x4's with hole drilled in each end to match  $\frac{3}{4}$  pegs
  - c. Pegs which are about one foot long and  $\frac{3}{4}$ " in diameter
  - d. Cross section template which is shape you want ditch to be
  - e. Concrete
  - f. Three men
  - g. 12 one foot stakes

### 5. Steps:

Dig ditch in straight line using template

Drive one foot stakes into ditch at bottom until only 2 inches show above ground.

Place 2x4"s along the top boarder of the proposed lining as pictured and stake in place through peg holes.

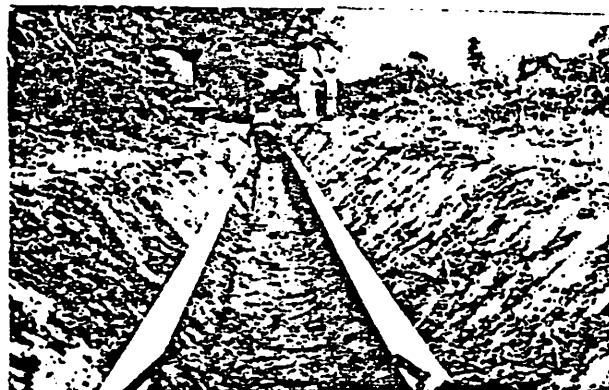
Pour concrete into ditch and spread until it is 2 inches thick (tops of stakes just touching surface).

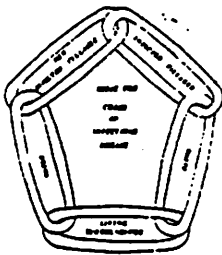
Move 2x4's to next twelve foot section and repeat the process

When concrete has set; cover with moist earth and let cure 10 days.

Line banks of ditch with sod from level of liner up.

Pre-cast sections of guttering or pipe can be used, but are more expensive..Lining can also be made of brick or stone.





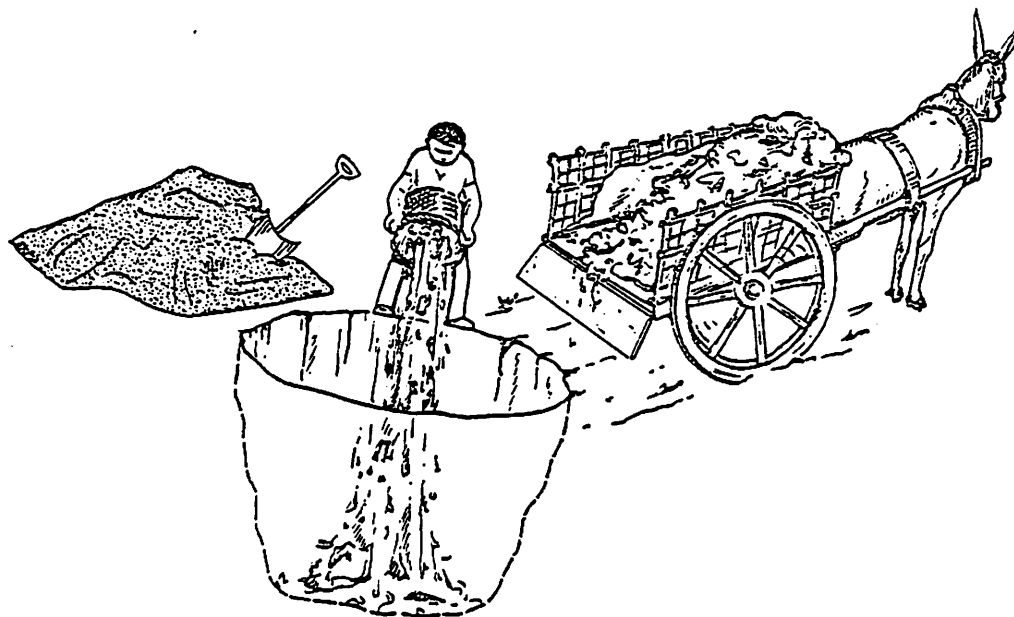
## DISPOSAL OF GARBAGE AND REFUSE

Proper disposal of garbage and trash is essential for control of flies, rodents and other pests is to be achieved. In general there are only a few principles involved.

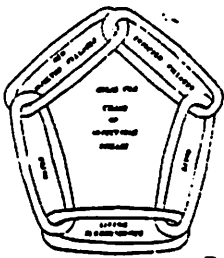
1. Households must have some covered container to store refuse until it can be collected.
2. Regular community pickups should be made at intervals which prevent overflow of containers.
3. A centralized dump or landfill must be made available where refuse can be buried at frequent intervals (daily)
4. The final layer of soil on refuse should be 60 cm.

5. Landfills should be about one mile from the village and not located near reservoirs or water supplies.

The illustration is presented which shows landfill that would be used in a village setting as well as a proposed design for a cart to haul refuse.







## PEST AND RODENT CONTROL

Pests and rodents are transmitters of disease to man. Some examples include mosquitos, which carry malaria, flies which can carry stool-borne diseases, and other insects which can carry disease to food, clothing, etc.

## PESTICIDES ARE NO SUBSTITUTE FOR GOOD SANITATION

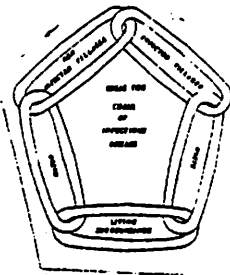
### The Following Guidelines are Suggested for Controlling Various Insects:

1. Lice, mites, ticks - all clothing, furniture and inhabitants of a household must be washed at one time to be rid of all eggs and insects
2. Horseflies - clean the food preparation area
3. Properly dispose of garbage and refuse
4. Construct toilets as described to reduce the number of flies
5. Mosquitos - destruction of breeding areas is best approach, which usually involves good drainage program
6. Bees and wasps - should be removed by experienced bee handlers only
7. Bedbugs - these are easily introduced into bedding and little relation to cleanliness. They can be removed by cleaning all bedding at once.
8. Rats and mice - good sanitation is primary means of control, poison is a secondary control. Keep all foods in tightly closed containers and on high shelves. Good refuse handling is essential.

## HOUSING

Several general considerations are important when trying to establish good sanitation in the home:

1. Good ventilation to reduce moisture and lower temperature which will discourage growth of bacteria
2. Good sunlight as bacteria are killed by sunlight
3. Hard floors to enable periodic cleaning.



## PERSONAL CLEANLINESS HABITS

Several factors of personal cleanliness are to be discussed:

1. Food and kitchen
2. Household cleaning
3. Handwashing and bathing

Since poor handling of food in the kitchen is likely to spread disease to the entire family, it is important that good habits be developed there. The following guidelines are suggested.

1. Keep food preparation time short. Warm foods which stand for several hours may be unsafe to eat.
2. Cover all foods in the refrigerator
3. Leftovers should be refrigerated at once.
4. Wear clean clothes when handling food
5. Careful handwashing is important and should be done before any food handling or preparation and after use of the privy

Good handwashing should be done with warm water and soap; the following steps should be taken:

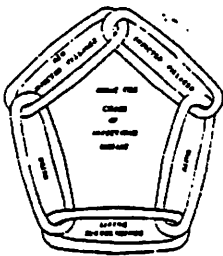
keep nails trimmed  
clean nails with file  
wet hands then lather with soap  
scrub for 2-3 minutes vigorously, rubbing all parts of the hands  
up to the wrists  
rinse and relather  
scrub for another 2 minutes and rinse  
dry on clean cloth or towel

Keep all kitchen equipment clean, washing in hot soap and water, and rinsing in hot or scalded water. Dry in sunlight if possible.

Scrub all floors at least twice a week

Sweep and mop all floors of the home regularly

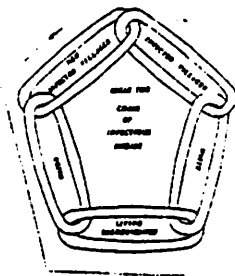
**FARM ANIMALS DO NOT BELONG IN THE HOUSE**



## CONCLUSION

If the auxiliary is successful in starting good sanitary practices in his village he can greatly reduce the incidence of death from infectious diseases and increase the vitality of the villagers. The principles and techniques are readily learned and should be started as soon as possible. Particularly, clean drinking water and sanitary waste disposal must be started immediately if the auxiliary is to avoid serious illness and a great loss of manhours from the project. Guidelines as to the phasing of the various aspects can be seen in the general phasing chart at the beginning of the manual.

TIME SPENT ON SANITATION WILL  
ENABLE VILLAGE VITALITY MORE  
THAN ANY OTHER SINGLE PROGRAM



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1944

1. The first part of the report is devoted to a general survey of the situation in the country.

2. The second part of the report is devoted to a detailed analysis of the economic situation.

3. The third part of the report is devoted to a detailed analysis of the social situation.

4. The fourth part of the report is devoted to a detailed analysis of the political situation.

5. The fifth part of the report is devoted to a detailed analysis of the cultural situation.

6. The sixth part of the report is devoted to a detailed analysis of the international situation.

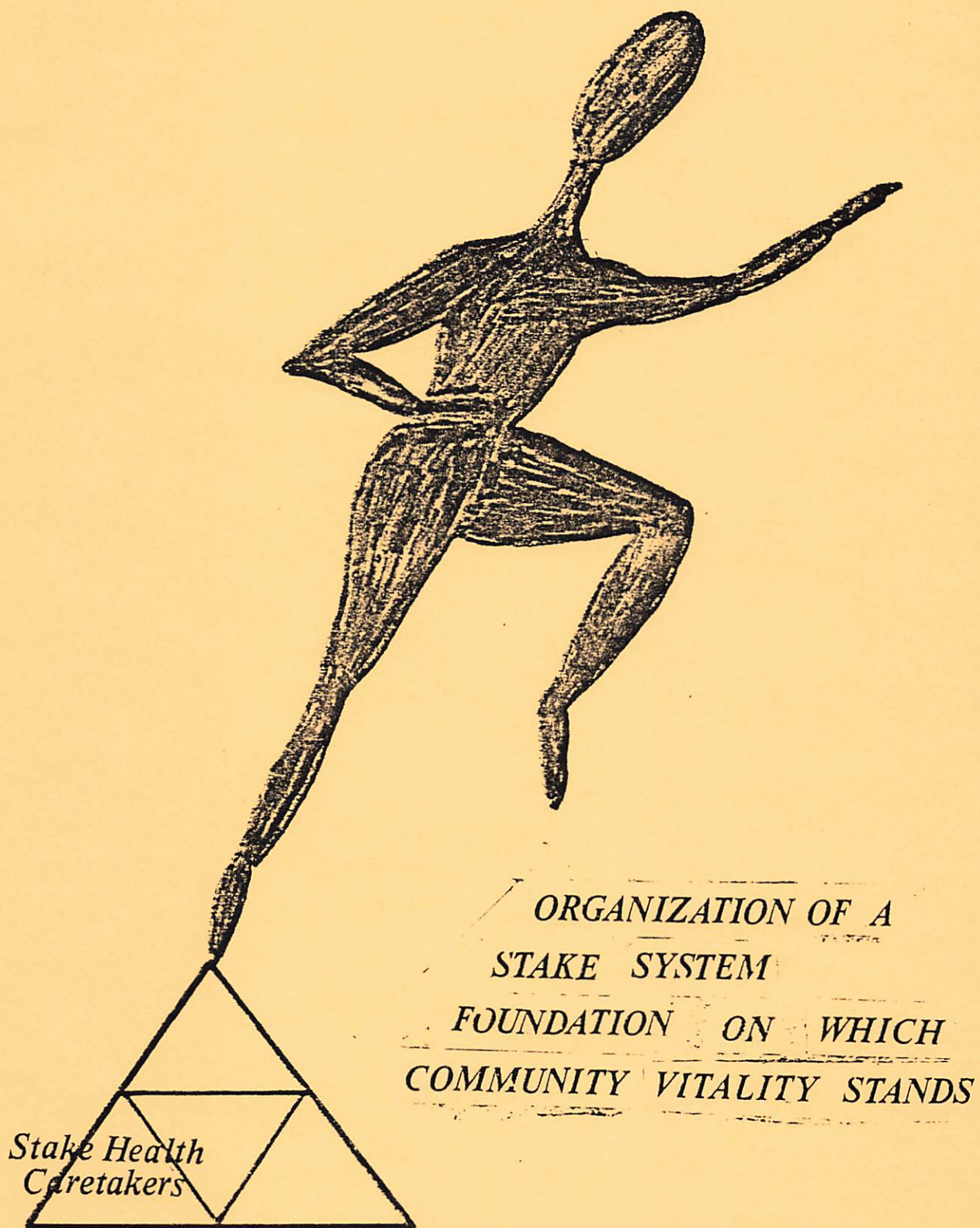
7. The seventh part of the report is devoted to a detailed analysis of the military situation.

8. The eighth part of the report is devoted to a detailed analysis of the diplomatic situation.

9. The ninth part of the report is devoted to a detailed analysis of the financial situation.

10. The tenth part of the report is devoted to a detailed analysis of the legal situation.

# VITALITY MAINTENANCE SYSTEM





This manual was created by the Health Care Task Force of the Global Research Assembly of the Institute of Cultural Affairs in Chicago, Illinois, in July, 1977. It was first published as part of the Guidebook for the Renewal of Village Vitality in August, 1977. In completing this manual we borrowed extensively from the experience and writings of others working in the field and intend this material would be freely available to those working in community development around the globe.



## INTRODUCTION

This section of the Guidebook describes the way a local structure is created to care for the health and vitality of every person in the community. Another section of the guidebook tells how these local structures can be financed. The first step is conducting a survey which tells you data you need to begin. Next, is to create the Stake Health-Caretakers system. The Education section of the guidebook how to train these volunteers. This section tells how to organize their work. After the Stake Health Care-takers have begun you build and supply the Health Outpost. The fourth step is bringing in outside professionals for services, and the last step is refining the local services.

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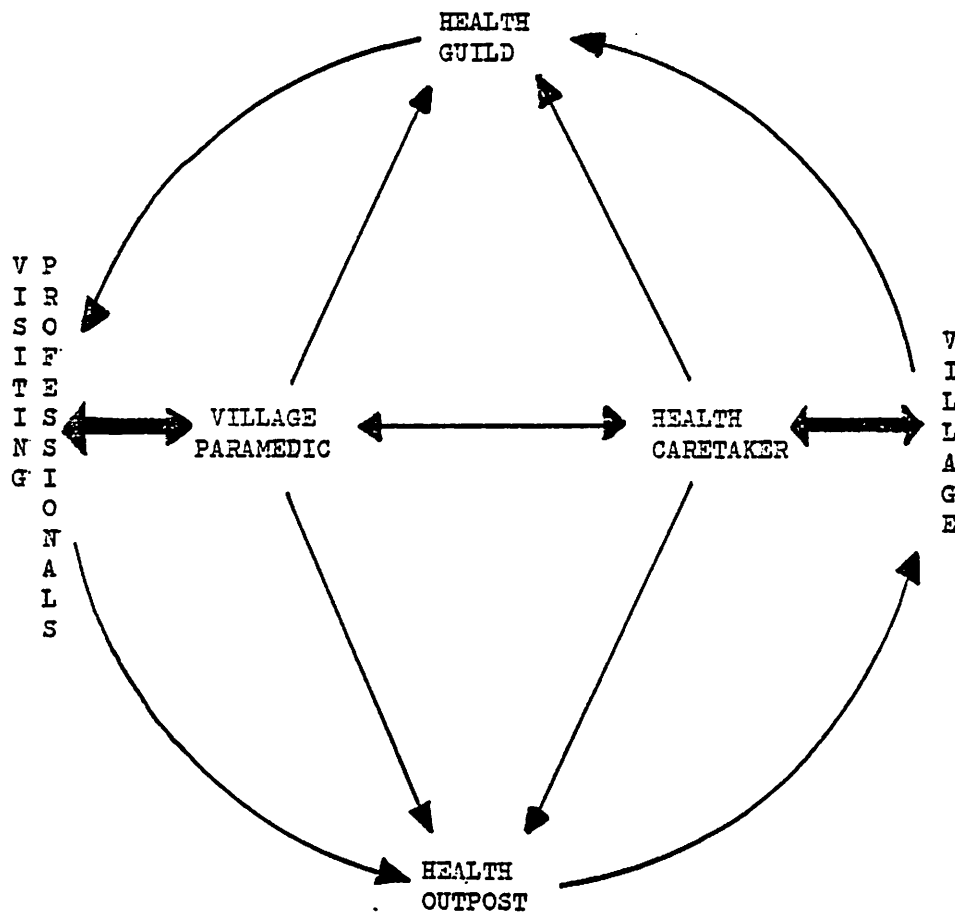
## CONTENT

1. Survey	Page 3.4-3.19
2. Stake Health Caretakers	Page 3.21-29
3. Health Outpost	Page 3.30-3.42
4. Professional Services	Page 3.43-3.48
5. Rfining the local system	Page 3.49-3.54
6. Bibliography	Page 3.55



JOURNEY OF VITALITY MAINTENANCE SYSTEM			
BEGINNING	DEMONSTRATION	REFINEMENT	SELF-SUFFICIENCY
<b>Health Caretaker</b> 1) Recruit by Stakes 2) 3 week Intense training 3) Health Forum	<b>Health Caretaker</b> 1) Mass Immunization clinic 2) Implement health record system 3) Monthly family visits 4) Start "Under 5 Program" 5) Community education on Signal Disease	<b>Health Caretaker</b> 1) Training in "Treatment by Symptoms" 2) Select and send out one health caretaker for paramedic training	<b>Health Caretaker</b> 1) Evaluation Survey 2) Paramedic Assumes management of Health Outpost
<b>Health Outpost</b> 1) Secure site 2) Rehabilitate 3) Erect sign	<b>Health Outpost</b> 1) Obtain medical supplies and medicine 2) Preventive Dentistry Program starts	<b>Health Outpost</b> 1) Staffed daily 2) Fully equipped	<b>Health Outpost</b> 1) Local financing established 2) Mass screening clinic and follow-up
<b>Professional Service</b> 1) Identify area professionals 2) Invite to site and Health Fair	<b>Professional Service</b> 1) Mass treatment of signal disease	<b>Professional Service</b> 1) Regular/special clinic 2) Fluoride Program	<b>Professional Service</b> 1) Contracted services 2) Dental treatment
<b>Emergency Service</b> 1) Identify/publicize 2) Liaison with hospital staff 3) Use treatment manual	<b>Emergency Service</b> 1) First aid training of staff by professional	<b>Emergency Service</b> 1) First aid training 2) Health Caretakers call Roster Published	<b>Emergency Service</b> 1) Referral Network operational
<b>Consult</b> 1) Survey/analysis 2) Identify Signal Disease			

## *Dynamics of Maintaining a Vital Village*



Central to a local health system are the village volunteer stake health caretakers. They are the link between the community and outside professional services. They catalyze the Guild and maintain the health outpost. The paramedics are one to two health caretakers who have received further training and serve the community with special skills and management of the system. The dynamic flow of interchange is key to the effectiveness of the system.



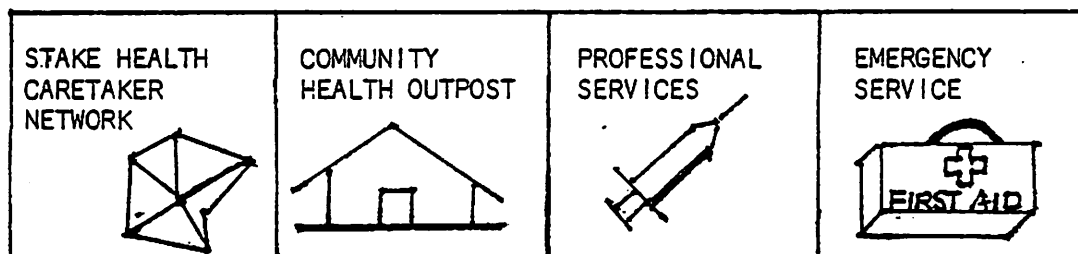
## LOCAL VITALITY MAINTENANCE SYSTEM

- How to enable your community to build programs caring for the vitality of every individual -

### CONTEXT

Effective health care delivery does not have anything to do with a building called a Health Outpost, it does not have anything to do with having doctors or even nurses in residence or volunteering regular services unless there is a stake network of local residents trained to deliver day to day care to their neighbors. The real power of the local caretaker rests in his or her ability to keep people from getting sick rather than in helping people who are already sick, but even here he is the only agent which will allow outside health services to be delivered effectively in the village. Most of the rural villages of the world cannot achieve vitality without local residents in voluntary service providing preventative services on a regular basis through the Stake Network structure.

### ESSENTIALS CHART



### ASSUMPTIONS

Stakes - key to manageability

Stake Health Caretakers - delivery of preventive and simple treatment and opens way for general stake development

Preventive Care - is the effective way to well-being not "crisis intervention"

Health Caretakers are laymen.

Creation of the Health Outpost is a symbol of the community's decision to deal with its own health care

Literacy is not a prerequisite, records must be kept, illiterate people can be easily taught to keep records



## LOCAL VITALITY MAINTENANCE SYSTEM

(cont'd)

### CONCEPTS

Stake Health Caretaker, Health Outpost, prevention, treatment by symptoms, emergency services

Stake Health Caretaker - is a local person responsible for 20 to 30 families within the given neighborhood in the community who:

1. Weighs all babies in those families from 0 to 5 years once a month and checks immunizations
2. Records immunizations and weights on "Road to Health" chart monthly
3. Refers children with growth and immunization problems to Back-up Medical Services for immunization exam and enters the child in Community Feeding Program
4. Teaches maternal child class during monthly weight sessions
5. Visits each family one a month
6. Maintains records of illness and treatment, pregnancies, births and deaths
7. Delivers treatment by symptoms of minor common illnesses
8. Meets regularly (weekly/bimonthly) with fellow Stake Health Caretakers to receive ongoing training and engage in planning and implementing programs dealing with the health of the community as a whole
9. Encourages and enables all who need referral services to receive them in a most human manner
10. Assists professionals in performing community survey and mass treatment programs by recruiting families in their stake
11. Advocates and teaches hygienic and good nutritional practices in all homes
12. Demonstrates through his/her own life and family a model of good health practices

Health Outpost - a Health Outpost is a designated space:

1. Where supplies and equipment are safely stored and are available for use
2. Where patient records are kept
3. Where vitality maintenance library is kept
4. That is a clean place to dress wounds
5. That has enough supplies so that a visiting M.D. may use his skills
6. That is a node for Stake Health Caretaker meetings
7. That maintains primary emergency equipment
8. That may be the site of screening and mass treatment clinics
9. That may be the operation center for (visiting) mobile teams
10. That may be operated by the community nurse or paramedic or Health Caretaker

Prevention - a system for the stake level designed to prevent disease and malnutrition.

Treatment by Symptoms - is the simple treatment by Health Caretakers of common illnesses by the assessing of the complaints which the illnesses cause. Ninety percent of common illnesses in the village can be cured in this way without the Health Caretakers having to know physical diagnosis.

Emergency Services - are simple first aid care provided locally to prevent further damage and the rapid safe transportation to the nearest hospital.





## COMMUNITY SURVEY

### INTRODUCTION

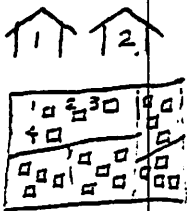
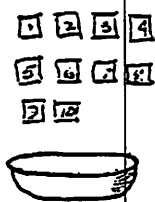


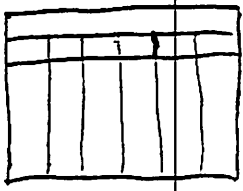
A Community Survey should be conducted during the Consult or as soon as possible after. This will determine the real health needs of the community. A random sampling of 1 out of every 10 households is a reliable indicator of the health of the whole community.

Before conducting the survey get authorization from the community leaders by visiting them and doing the survey in their houses. Hold this data but do not compute it into the final random survey as it may lead to biased (misleading) results.

### CONTENTS

- |                          |                |
|--------------------------|----------------|
| 1. How to do a survey    | Page 3.10      |
| 2. Survey Form           | Page 3.11-3.13 |
| 3. Survey Analysis Guide | Page 3.14-3.19 |

THE SURVEY IS YOUR FIRST STEP IN  
BUILDING THE LOCAL SYSTEM

INSTRUCTIONS FOR DOING A COMMUNITY SURVEY FORUM			
Task Phasing	Things To Do	Intent	Image
Preparation	<ol style="list-style-type: none"> <li>1. Make stake grid</li> <li>2. Show all houses</li> <li>3. Number the houses on grid</li> <li>4. Place number on the actual houses</li> </ol>	Making it easy to get the job done.	
Selection	<ol style="list-style-type: none"> <li>1. Make 10 pieces of paper</li> <li>2. Number them 1 to 10</li> <li>3. Put them in a hat or basket</li> <li>4. Mix them up</li> <li>5. Close your eyes and pick one</li> <li>6. The number on the paper is the number of the first house you visit, then you go to every 10th house after. (ex. 2, 12, 22)</li> </ol>	Visit a small number of houses in such a way that it tells you exactly what is going on in the entire village.	
Form Teams	<ol style="list-style-type: none"> <li>1. One outside consultant per team</li> <li>2. If translation is needed translation must be fluent</li> <li>3. One local person/team</li> <li>4. Two to three teams</li> </ol>	Have teams who know health and who know the village.	
Make Visits	<ol style="list-style-type: none"> <li>1. Each visit takes about one hour</li> <li>2. Ask to sit down in home</li> <li>3. Invite all family to talk</li> <li>4. Mother is the key person</li> <li>5. <u>Don't Leave Anything Out</u></li> <li>6. Record everything</li> </ol>	Get all the information needed in a relaxed manner.	
Analyze Results	<ol style="list-style-type: none"> <li>1. Go through each item one at a time</li> <li>2. Record the responses on a common sheet</li> <li>3. Don't throw away the surveys</li> <li>4. Follow guidelines of analysis</li> </ol>	Thinking carefully	



INITIAL SURVEY FORM

BIRTH/INFANT DATA

1. HOW MANY BABIES HAVE YOU HAD? \_\_\_\_\_
2. HOW MANY DIED? \_\_\_\_\_ CAUSE OF DEATH \_\_\_\_\_
3. WHERE DID YOU HAVE THE BABY? \_\_\_\_\_
4. WHO DELIVERED IT? \_\_\_\_\_
5. HOW WAS IT DELIVERED? \_\_\_\_\_
6. DID YOU GET VITAMINS & TETANUS \_\_\_\_\_

VILLAGE PERCEPTION OF HEALTH STATUS

7. HOW MANY PEOPLE IN THE FAMILY? \_\_\_\_\_
8. HAS ANYONE IN YOUR FAMILY HAD:  
DIARRHEA \_\_\_\_\_  
WORMS \_\_\_\_\_  
FREQUENT FEVERS \_\_\_\_\_  
COUGH \_\_\_\_\_  
ALCOHOLISM \_\_\_\_\_  
DRUG ADDICTION \_\_\_\_\_  
SKIN DISORDERS \_\_\_\_\_  
OTHERS \_\_\_\_\_
9. IS ANYONE CURRENTLY SICK? \_\_\_\_\_  
WHAT FROM: \_\_\_\_\_
10. HAS ANYONE DIED IN THE LAST THREE MONTHS? \_\_\_\_\_  
WHAT CAUSE: \_\_\_\_\_
11. WHAT ARE MOST COMMON DISEASES IN VILLAGE? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

VILLAGE PERCEPTION OF HEALTH SERVICES

12. WHO IN FAMILY TAKES CARE OF HEALTH PROBLEMS \_\_\_\_\_





13. WHO IN NEIGHBORHOOD DO YOU GO TO FOR CARE? 1?

14. WHAT PROFESSIONAL SERVICES DO YOU USE?

15. ARE YOU SATISFIED WITH PROFESSIONAL SERVICES?

16. HOW FAR AWAY ARE THEY?

WHEN ARE SERVICES AVAILABLE IN THE VILLAGE?

17. WHAT DO SERVICES COST?

WHAT SERVICES ARE FREE?

18. WHAT IMMUNIZATIONS HAS YOUR FAMILY HAD?

HAVE ADULTS BEEN IMMUNIZED?

HAVE CHILDREN BEEN IMMUNIZED?

DO YOU KNOW THE NAMES OF IMMUNIZATIONS?

DO YOU HAVE RECORDS?

IF NOT, WHO HAS THE RECORDS?

#### DENTAL SURVEY

19. DOES ANYONE IN YOUR FAMILY HAVE A TOOTH-ACHE NOW?

20. IS DENTAL TREATMENT AVAILABLE BEYOND EXTRACTION?

21. DOES YOUR FAMILY CLEAN THEIR TEETH?

22. WHO IN YOUR FAMILY HAVE MISSING TEETH?

23. WHAT HAS CAUSED LOSS OF TEETH?

24. IS THERE ACCESS TO DENTURES?

25. IS THERE FLOURIDE IN THE WATER?

26. IS THERE A CENTRAL WATER SUPPLY?



# INITIAL SURVEY FORM

## PHYSICAL EXAMINATION

Check all family members for obvious problems -  
Record these on sheet.

FAMILY MEMBER	SKIN	EYES (Vision)	DEFORMITY	MOUTH (Teeth)	COUGH	ARM CIRC.
Father						Only Done Between Ages
Mother						1-5 (see Nutri- tion Survey for tech- nique)
Child -age						
Child -age						
Child -age						
Child -age						
Child -age						
Child -age						
Relative						
Relative						



INITIAL SURVEY EVALUATION  
(tabulated results from the 10% survey)

BIRTH/INFANT

1. TABULATE THE AVERAGE NUMBER OF BIRTHS PER WOMAN.

Total number of women in survey \_\_\_\_\_

Total number of births reported \_\_\_\_\_

Divide number of births reported by number of  
women in survey \_\_\_\_\_

2. TOTAL INFANT DEATHS \_\_\_\_\_

TOTAL LIVE BIRTHS \_\_\_\_\_

TOTAL NUMBER OF INFANT DEATHS ÷ BY TOTAL INFANTS BORN  
\_\_\_\_\_

RESPONSE: -5% not priority  
5-10% secondary concern  
10% priority concern  
\_\_\_\_\_

TOP THREE CAUSES OF INFANT DEATH

These are your main targets  
for prevention program through  
state Health Caretakers.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. NUMBER OF BIRTHS IN HOMES \_\_\_\_\_

NUMBER OF BIRTHS AT HEALTH FACILITY \_\_\_\_\_

4. NUMBER DELIVERED BY FAMILY \_\_\_\_\_

BY MIDWIFE \_\_\_\_\_

BY PROFESSIONAL \_\_\_\_\_

METHOD

ON FLOOR, ETC. \_\_\_\_\_

WHAT WAS CORD CUT WITH? \_\_\_\_\_

WHAT WAS PUT ON CORD? \_\_\_\_\_

All of this tells the importance of teaching home delivery.



## INITIAL SURVEY EVALUATION (cont.)

RANK THE TOP 5 DISEASES IN ORDER, NUMBER 1 BEING THE MOST SERIOUS.

ASK HEALTH PROFESSIONALS WHAT ARE MOST COMMON DISEASES IN COMMUNITY?

RANK THE RESPONSES GIVEN MOST FREQUENTLY ON THE SURVEY. (questions 3-11)

TABULATE AND RANK THE RESULTS OF PHYSICAL EXAMS

	1	2	3	4	5
HEALTH PROFESSIONALS					
SURVEY RESULTS					
EXAMINATION RESULTS					

LIST THE DISEASES BY RANK, THE MOST COMMON ON THE THREE LISTS  
A BEING FIRST. THESE ARE YOUR COMMUNITY'S SIGNAL DISEASES.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

A SIGNAL DISEASE DEMANDS A SIGN





INITIAL SURVEY EVALUATION (cont.)

HEALTH COSTS  
(question 17)

WHAT DO SERVICES COST THE VILLAGE?

WHICH SERVICES ARE FREE?

BASIC CLINIC	_____	_____
SPECIAL CLINICS	_____	_____
HOSPITAL CARE	_____	_____
HOME VISIT	_____	_____
DENTAL	_____	_____
GLASSES	_____	_____
MEDICINES	_____	_____
OTHERS	_____	_____

THESE QUESTIONS ALSO NEED TO BE ASKED OF THE TRAINED PROFESSIONALS OR NEAREST HEALTH CARE STRUCTURE.

THINGS TO LOOK FOR:

EXPLORE WAYS OF COMBINING OR CUTTING COSTS \_\_\_\_\_

WHAT HEALTH SERVICES ARE NEEDED BUT ABSENT?  
(dental, glasses) \_\_\_\_\_

WHAT SYSTEMS ARE SET UP BUT NOT DELIVERED? \_\_\_\_\_

WHERE ARE THERE POSSIBILITIES FOR SERVICES  
AND MEDICINES?  
(these issues become the work of the caretakers, guild) \_\_\_\_\_

IMMUNIZATIONS

SPECIFIC RECORDS NEED TO BE KEPT FOR EACH FAMILY IN THE HEALTH OUTPOST

	Adult	Children
WHAT IMMUNIZATIONS HAVE BEEN GIVEN IN THE VILLAGE?	_____	_____
WHEN GIVEN? (mass inoculation or available regularly)	_____	_____
	_____	_____
	_____	_____



## INITIAL SURVEY EVALUATION (cont.)

### DENTAL SURVEY (questions 19-25)

	FREQUENT	OCCASIONAL	SELDOM
WHAT IS THE INCIDENCE OF TOOTHACHE?	_____	_____	_____
WHAT IS THE FREQUENCY OF TOOTHBRUSHING?	_____	_____	_____
WHAT IS THE EVIDENCE OF MISSING TEETH?	_____	_____	_____
WHAT IS STRUCTURE FOR DENTAL CARE?	_____		
Filling	_____		
Extractions	_____		
Dentures	_____		
Prevention	_____		
WHAT IS THE NEAREST AVAILABLE EMERGENCY CARE FOR DENTAL PROBLEMS?	_____		

This tells you where to start in your education programs  
and identifies who can help you.



## Community Survey cont'd

### END OF YEAR HEALTH SURVEY

Near the end of each year a repeat survey of the community should be done. The image for this survey is found in the Health Education Section. Data from this survey will tell the auxiliary and the community what has been accomplished and what remains to be done. Further acceleration or future health treks can then be planned.

THE SURVEY IS AN IMPORTANT PART OF YEARLY PLANNING



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## HEALTH CARETAKER

### INTRODUCTION

The first step after the survey in building your local health system is to recruit volunteers or nominated persons from each atake so that there is one health caretaker for each twenty to thirty families. How you get this group started is described in the Health Emphasis Month section of the Education portion of the manual.

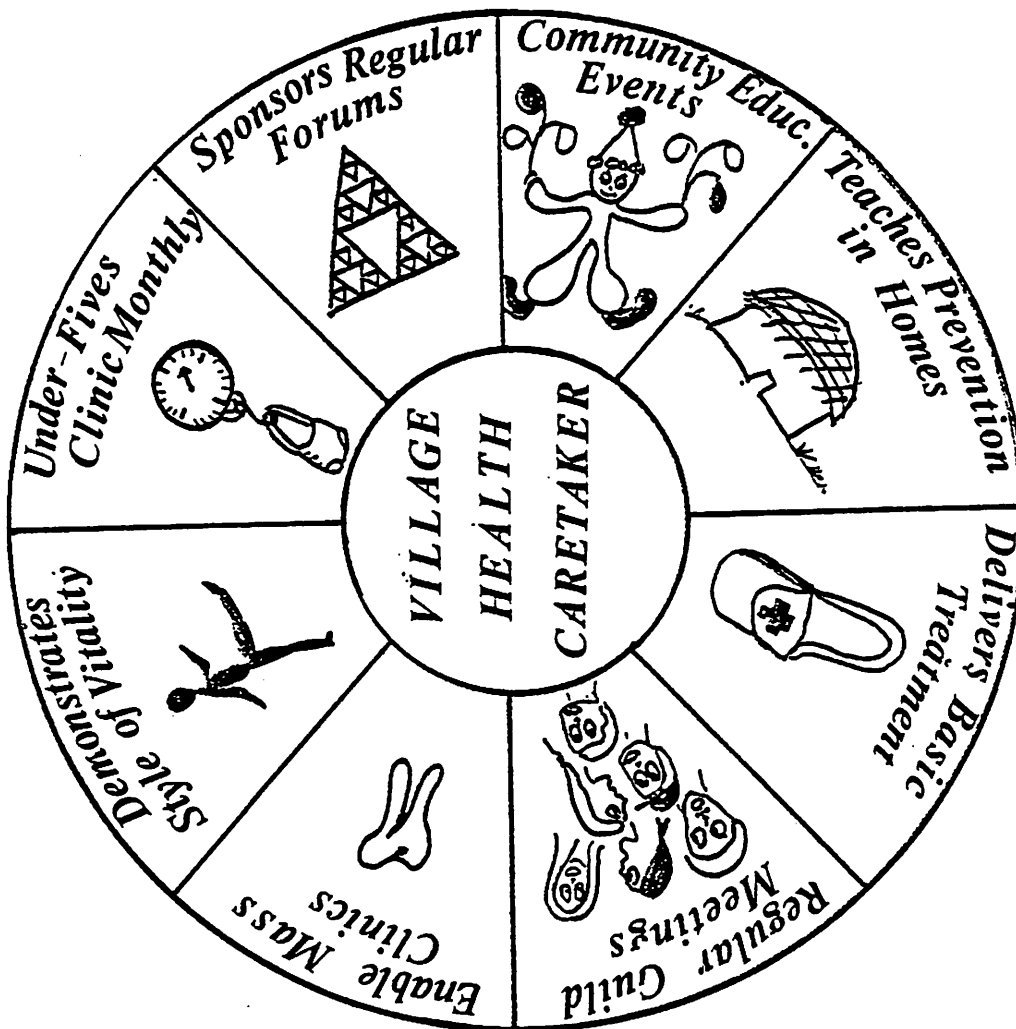
Here we outline the roles and tasks of the Caretakers as part of the whole local system. The main job the Caretakers do is the Under-Fives Clinic or monthly baby weighing. This is conducted in the stakes in the mothers' homes not in the Out-post. After their initial training they meet weekly as the Health Guild - a meeting format is shown here

### CONTENT

1. Roles and tasks	Page 3.22-3.23
2. Under-fives Clinic	Page 3.24-3.25
3. Weighing charts	Page 3.26-3.27
4. Meeting Formats	Page 3.28-3.29

## ROLES OF VILLAGE HEALTH CARETAKER

The chart below portrays the roles that the village Health Caretaker will ultimately assume in the community - All the training given and events held point him in the direction of being able to do these tasks:



## HEALTH CARETAKER ACTIVITIES

3.23

<p style="text-align: center;">PHASE I (1st 6-9 months)</p> <p style="text-align: center;">PREVENTION WORK</p>	<ul style="list-style-type: none"> <li>- Visits each home once a month to do teaching.</li> <li>- Holds monthly weighing and immunization checks in stakes.</li> <li>- Attends weekly Training/Guild Meetings.- reports births-deaths-pregnancies.</li> <li>- Helps build Outpost.</li> <li>- Goes on Inkind calls for supplies.</li> <li>- Enables community impact events.</li> <li>- Attends all stake meetings.</li> <li>- Begins literacy classes.</li> </ul>
<p style="text-align: center;">PHASE II (2nd 6-9 months)</p> <p style="text-align: center;">ADDS BASIC TREATMENT</p>	<ul style="list-style-type: none"> <li>- Visits each home once a month to do teaching.</li> <li>- Holds monthly weighing and immunization checks in stakes.</li> <li>- Attends weekly Training/Guild Meetings - reports births-deaths-pregnancies.</li> <li>- Works corporately to maintain Health Outpost.</li> <li>- Helps recruit professionals.</li> <li>- Hosts mass clinic.</li> <li>- Delivers simple treatment to families he is responsible for.</li> <li>- Enables community impact events.</li> <li>- Gives spins at stake meetings.</li> <li>- Shares monthly Emergency Call Schedule.</li> </ul>
<p style="text-align: center;">PHASE III (3rd 6-9 months)</p> <p style="text-align: center;">PARAMEDICS TRAINED</p>	<ul style="list-style-type: none"> <li>- Visits each name once a month for teaching and treatment follow-up</li> <li>- Holds monthly weighing and immunization checks in stakes.</li> <li>- Attends weekly Training/Guild Meetings- reports births-deaths-pregnancies.</li> <li>- Hosts mass clinics.</li> <li>- Delivers simple treatment to families he is responsible for.</li> <li>- Enables community impact events.</li> <li>- Creates funding scheme.</li> </ul> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div></div> <div> <p>Paramedic:</p> <ul style="list-style-type: none"> <li>- Maintains H.O.P.</li> <li>- Maintains professional contacts.</li> <li>- Does clinic follow-up</li> <li>- Maintains records.</li> <li>- Provide Emergency Care.</li> </ul> </div> </div>



## GUIDELINES FOR UNDER FIVES CLINIC

- Equipment
- Procedure
- Recording

Locate one or two homes in each stake which can be used for the Under-Fives weighing. Health Caretakers bring the equipment from the Health Outpost.

EQUIPMENT	
<p>1. Hanging spring scale with clock-face and 25 kg. capacity.</p> <ul style="list-style-type: none"> <li>- Salter Company</li> <li>- Available through UNICEF CRS</li> <li>Some government agencies</li> </ul>	
<p>2. Weighing breeches - three pairs - big enough to fit 5 year old child.</p> <ul style="list-style-type: none"> <li>- These can be made from cloth.</li> <li>- Sometimes they come with the scales.</li> </ul>	
<p>3. A Tripod - if there is nothing to hang the scale from.</p>	
<p>4. Road to Health Charts - (see sample on records section)</p> <ul style="list-style-type: none"> <li>- To be given to mother to keep.</li> <li>- If possible should give plastic envelope to put it in.</li> </ul> <p>Available through - UNICEF CRS</p> <p>some government agencies</p>	



Guidelines For Under Fives Clinic  
(Cont'd.)

PROCEDURES	
WEIGHING	<ol style="list-style-type: none"><li>1. Team of three -<ul style="list-style-type: none"><li>- One weighs - mother</li><li>- One organizes children - mother</li><li>- One fills out records - HCT</li></ul></li><li>2. Put each child in breeches gently so he doesn't cry.</li><li>3. Record weight on chart.</li><li>4. Show to mother.</li><li>5. Record weight in holding chart.</li></ol>
IMMUNIZATIONS	<ol style="list-style-type: none"><li>1. Record all new immunizations on mother's card and hold chart.</li></ol>
REFERRAL	<ol style="list-style-type: none"><li>1. Tell mothers if child is not growing or needs immunization.</li><li>2. Arrange child to be checked by visiting professional.</li><li>3. Enroll child in feeding program.</li><li>4. If child is missing send one worker to get him.</li><li>5. Refer name to pre-school if over 2 years.</li></ol>
REFLECTION	<ol style="list-style-type: none"><li>1. Gather all mothers together.</li><li>2. Give short talk on immunizations, child care, nutrition, breast feeding, etc.</li><li>3. Hold conversation pointing to common problems and concerns in child care.</li><li>4. Praise mothers and children with progress.</li></ol>



## GUIDELINES FOR WEIGHING HOLDING CHART

The holding chart is built to hold all immunization data, weight of each child under six and a code for illness in each month. One holding chart is needed for each stake.

### Materials

1. File folder or light weight cardboard 17" X 11" that can be folded in half
2. Two sheets of 8½ X 11 paper
3. Ruler and staples or glue

### Steps

1. Take one sheet of paper and down the length of the paper beginning on the left side are the following columns:
  - A. Column for each shot needed for full immunization
  - B. Column for stake number
  - C. Column for full name
  - D. Column for date of birth
2. Staple page to left inside file folder.
3. Take second sheet of paper and make six columns or six months divide columns for each month into 2 columns. One is for weight and one is for illness if occurred during the month.
4. Staple this on right inside file folder.
5. Make horizontal lines down page with enough for one name.

### Use of Chart

1. On left side fill in immunization box with date received. This gives you a permanent record of each child's immunization as well as whole picture for stake at a glance.
2. Fill in weights on right side of page.
3. As right side is completed (every six months) add new sheet. The left side remains constant.
4. Helpful list - put all the children of one family on consecutive lines.

(See illustration on next page)



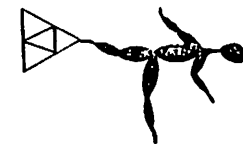




## HEALTH CARETAKERS MEETINGS

<u>HEALTH CARETAKER</u>		Weekly Meeting Format
<p>OPENING</p> <p>20 minutes</p>	<ol style="list-style-type: none"> <li>1. Songs/Ritual--Local, global, health songs</li> <li>2. Accountability--For stake and unit representation</li> <li>3. Report--Of illness, death, birth, and pregnancy within the community</li> <li>4. Rehearse--Quarterly timeline and this week design</li> </ol>	
<p>TRAINING</p> <p>30 minutes</p>	<p>A TALK THAT PROVIDES:</p> <ol style="list-style-type: none"> <li>1. Foundational Health Data</li> <li>2. Practical Skills for Health Caretakers</li> <li>3. Implications for Community Health</li> <li>4. Cruciality for Nation &amp; the World</li> </ol>	
<p>WORKSHOP</p> <p>40 minutes</p>	<p>DIVIDING INTO SMALLER GROUPS TO:</p> <ol style="list-style-type: none"> <li>1. Practice skills from the talk</li> <li>2. Make practical plans for weekly meetings</li> <li>3. Solve community health problems</li> <li>4. Plan referrals and follow-up for neighbors in community</li> </ol>	
<p>CLOSING</p> <p>30 minutes</p>	<ol style="list-style-type: none"> <li>1. Reports--2 minute statements from each of the workshops</li> <li>2. Reflection--Questions &amp; issues, implications of workshop reports</li> <li>3. Announcements--Information necessary before next meeting</li> <li>4. Songs/Send Out--Celebrate work of meeting &amp; go out to care</li> </ol>	

HEALTH CARETAKER QUARTER'S MEETINGS													
WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>OPENING</b>  1. List songs to be sung 2. List leaders													
<b>TRAINING</b>  1. List who is coming 2. List the subject of their talk													
<b>WORKSHOP</b>  1. List content for each workshop 2. List materials needed													
<b>CLOSING</b>  1. List announcements to be made 2. List songs to be sung													



HEALTH CARETAKERS MEETINGS  
(Cont'd)



## COMMUNITY HEALTH OUTPOST

### INTRODUCTION

The following pages give guidelines for establishing a Health Outpost in your community. The Outpost is a critical component of the Local Health System. It is a place where supplies for local workers and visiting professionals are kept. It is a place where they can give special treatments and where the Caretakers and the Guild can meet. It is not the first step in building your local system. First you create the Stake Health Caretakers System then through them the Outpost is created. The Financial Section of this guidebook describes Health Outpost financing.

### CONTENT

1. Outpost set-up	Page 3.31-3.32
2. Supplies	Page 3.33-3.36
3. Use of medicine	Page 3.37
4. Record keeping	Page 3.38-3.41

THE HEALTH OUTPOST IS A SYMBOL OF THE  
COMMUNITY'S DECISION TO RENEW ITS VITALITY



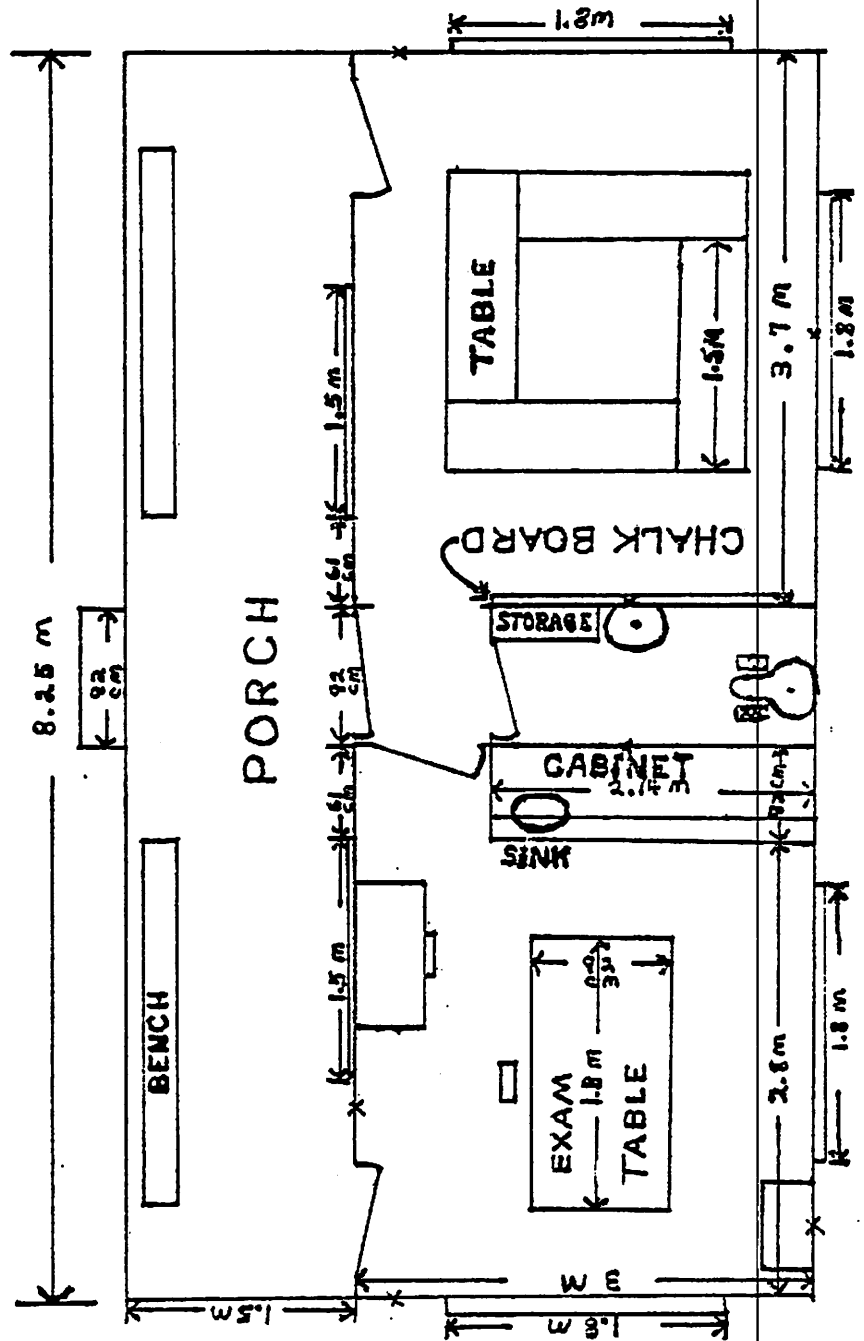
## GUIDELINES FOR SETTING UP A HEALTH OUTPOST

GUIDELINES FOR SETTING UP A HEALTH OUTPOST	
Picking a site	<ol style="list-style-type: none"><li>1. Find an unused building in a central location.</li><li>2. It should have two rooms - one for treatment and one for meetings.</li><li>3. It should have space in front for people to stay while waiting.</li></ol>
Reconstructing the Building	<ol style="list-style-type: none"><li>1. Floor must be solid clay or cement so it can be washed well.</li><li>2. Walls painted so they can be washed.</li><li>3. If not present make a window so that fresh air can blow through both rooms.</li><li>4. If available hook up electricity with at least one bright light in each room and wall plug for appliances.</li><li>5. Make roof water proof.</li><li>6. Put screens on windows and doors.</li><li>7. Put lock on door.</li><li>8. Hook up water or make large water storage bin of clay or cement (with a cover).</li><li>9. Put a sign on the front.</li><li>10. Make the ground on the outside look nice.</li></ol>
Orchestrating the Work	<ul style="list-style-type: none"><li>- See the Education Section on Community Health Impact Modules.</li><li>- Building the Outpost is emphasized for one month.</li><li>- Have work days with Health and Builder's Guilds recruiting community.</li><li>- When it's done have a dignitary officially open it.</li></ul>

REHAB BEFORE YOU BUILD A NEW OUTPOST

# HEALTH OUTPOST FLOOR PLAN

## HEALTH OUTPOST





## GUIDELINES FOR MEDICAL SUPPLIES INKIND

### CONTEXT

There are many private and public agencies, corporations and government departments who provide free and/or inexpensive drugs, vaccines, medicines and supplies to non-profit groups working in communities to improve the level of health. They need to know that you won't sell what you get from them. Also, many drug companies will give some out-dated medications. Observe closely for them and immediately throw them away (out of the reach of children and all other people).

#### Where To Go

1. For the names of businesses that supply, see list at back of this manual.
2. Go to the central office nearest government health agency.
3. Go to purchasing department of nearest hospital.

#### What To Do

1. Go to agencies and hospitals with a list of specific needs and amounts.
2. Request inkind goods on an ongoing basis - if not, ask for a supply to get started. (If not successful go to the next level distributors then to manufacturer if feasible).
3. Use area/continent guardians for authorization, letter of referral, and take on the visit if possible.
4. Establish a delivery system for acquiring supplies in adequate time for set-up.
5. HCT needs to make "request visit" along with guardian.
6. Guild needs to take increasing responsibility for securing and maintaining supplies. It is in the Guild that inventory maintenance is designed.
7. Guild is to do follow-up "thank you's" and tell the story of what supplier's generosity enabled.
8. Guild needs to develop funds for purchasing on a long range perspective towards independence.
9. Eventually this will be the responsibility of the paramedic who runs the health outpost.
10. Inkind large quantities, not samples.



## GUIDELINES FOR MEDICAL SUPPLIES INKIND (Cont'd)

### What To Get:

The following is a list of recommended drugs which every Health Outpost needs to have. Throw everything else out unless the Doctor tells you to keep it for his use.

#### Drug Names:

- |                            |                             |
|----------------------------|-----------------------------|
| 1. Acetarsol Vaginal Tabs  | 23. *Ergotamine injection   |
| 2. *Adrenalin Injection    | 24. Ferrous sulfate         |
| 3. Alcopar                 | 25. Folic acid 1 mg.        |
| 4. Aluminum Hydroxide      | 26. Gentian violet solution |
| 5. Aminophylline           | 27. Hetrazan 50 mg.         |
| 6. Aspirin                 | 28. Iodine tincture         |
| 7. Benzyl Benzoate         | 29. Kaolin pectate          |
| 8. Calamine lotion         | 30. Menthol rub             |
| 9. Calcium tablets         | 31. Multivitamins           |
| 10. Chlorphenamine 4 mg.   | 32. Penicillin 250 mg. tab  |
| 11. Chlorpromazine 25 mg.  | 33. *Injectable -           |
| 12. Cloves                 | Benzathine-Penicillin       |
| 13. Codeine 15 mg.         | 34. Phenobarbital 15 mg.    |
| 14. Cough expectorant      | 35. Piperazine syrup        |
| 15. Cough syrup (plain)    | 36. Salicylic ointment 2%   |
| 16. DDT powder 10%         | 37. Salt water -            |
| 17. Dettol                 | 2 pinches per glass water   |
| 18. Diarrhea mixture       | 38. Soda mint               |
| 19. Diiodohydroxyquine     | 39. Sulfacetamide eye drops |
| 20. Dulcolax               | 40. Sulfadimidine           |
| 21. Peanut oil drops       | 41. Sulfaquanidine          |
| 22. Boric spirit ear drops | 42. Throat lozenges         |
|                            | 43. Triple sulfa            |
|                            | 44. Vitamin A               |
|                            | 45. Vitamin A - D           |

\* These drugs administered by injection need to be given by a professional until the HCT has been trained.

### How To Use It:

See the Manual for Guidelines of Symptomatic Treatment on page .



## GUIDELINES: EQUIPING A HEALTH OUTPOST (furniture & supplies)

### FURNITURE:

chairs  
tables  
refrigerator  
file cabinet with drawers  
examination table  
cupboard with local for medicines  
chalk board, chalk, eraser  
toilet  
sink  
folding cots, linens  
decor

### CLEANING SUPPLIES:

mop  
broom  
bucket  
disinfectant  
hand soap  
paper towels  
rags  
toilet paper

### GENERAL ACCESSORIES:

lights  
lamps - kerosene and/or electric  
flash lights  
extra batteries

### JANITORIAL CARE OF HEALTH OUTPOST:

1. Scrub (soap & water) & disinfect floors daily and as necessary
2. Scrub & disinfect examination table between each patient if examining table paper is not used
3. Scrub & disinfect toilet each day
4. Scrub & disinfect basins each day
5. Scrub & disinfect chairs each week or two weeks
6. Disinfect walls once every three months
7. Keep building & furnishing in good repair





## GUIDELINES: EQUIPING A HEALTH OUTPOST (medical)

### MEDICAL:

scale  
stethoscope  
otoscope & ear pieces  
ophthalmoscope  
speculum-gyn  
microscope  
counting chamber  
electric oven  
pressure cooker  
blood pressure cuff

#### NOTE:

\*First choice is for MD to bring sterile equipment with him

In case of emergency take patient to the M.D.  
arranging transportation

### MEDICAL ACCESSORIES:

first aid kit (mobile)  
baby scale  
adult scale  
2 hemostats  
tongue blades  
slides  
tape measure  
yard stick  
magnifying glass  
eye droppers  
various sizes of measuring cups & pitchers  
tweezers  
centrifuge-manually operated  
gauze bolt  
tape-adhesive  
scissors  
teaching materials  
stains for stool & blood smears: Giemsa & Wright  
alcohol  
fixative  
medication (to treat symptoms)  
hemoglobin tape  
basins with lids  
examining table paper

### Dental

toothbrushes  
fluoride rinse in preschool  
tooth massagers

### CARE OF MEDICAL EQUIPMENT:

1. Clean all lab equipment after use i.e. slides, microscope, etc. NEVER LEAVE DIRTY OVERNIGHT.
2. Disinfect all scopes after each patient (in 70% alcohol)
3. Soak earpieces overnight in alcohol
4. Clean stethoscope bell once a week (in 70% alcohol)



## GUIDELINES: USE AND CARE OF MEDICINES

DRUGS ARE DANGEROUS UNLESS USED PROPERLY

### USE

1. Refer to Treatment by Symptom Manual for use of these drugs
2. Injectable medicines shall be given only by a doctor, nurse or by persons specifically trained by a doctor or nurse. Paramedics, auxiliary or Health Caretaker may be so trained

### CARE AND STORAGE

1. All medicines must be kept in original containers until transferred to clearly labeled containers for dispensing
2. The labels must always contain the name of the medicine and its strength; and the symptom it is used for
3. Tablets should be stored away from extreme heat. Injectable penicillin must be stored in a cool place-preferably under refrigeration. This may also include special drugs to be kept by order of physician.

### DISPOSAL

1. Expiration dates on original containers should be checked every three months. These are printed on bottle - if you are not sure throw it out.
2. If a medicine has outlasted its expiration date, it should be destroyed. Tablets should be buried in a hole to disintegrate. Do not bury near water supply. Injectable medicine may be emptied into the same hole in the ground. You may save containers for future use after removing the labels.

DRUGS ARE DANGEROUS UNLESS USED PROPERLY



## GUIDELINES: MEDICAL RECORD KEEPING

Through careful record keeping and imaginal wall charts evidence of village vitality is immediately available. It is a key tool in identifying health problems that are not easily observable.

### OBTAIN

1. See resources list for needed charts
2. Or secure printing sources to duplicate attached models

### USE

1. Record card kept on every person in the community
2. Use uniform system
3. Record in local language and English
4. Give each family a clinic number and each individual family member would be coded with their initials
5. Mass recordings kept on imaginal wall chart or graph
6. Record design so that illiterate individuals can use records
7. For mass clinics Health Caretaker uses one holding sheet for collecting data; transfers data onto family record kept centrally at Health Outpost. Data on babies and under fives are recorded with other family records so as to assure continuity of care.

### CARE

1. Keep all records in safe, dry, fireproof file or container
2. Records kept alphabetically/clinic number by stake
3. Keep records of specimens clearly labeled (what it is and family # and name of person, date)

GOOD RECORDS ARE KEY TO EFFECTIVE PLANNING



# IMAGINAL WALL CHART FOR MASS RECORDINGS

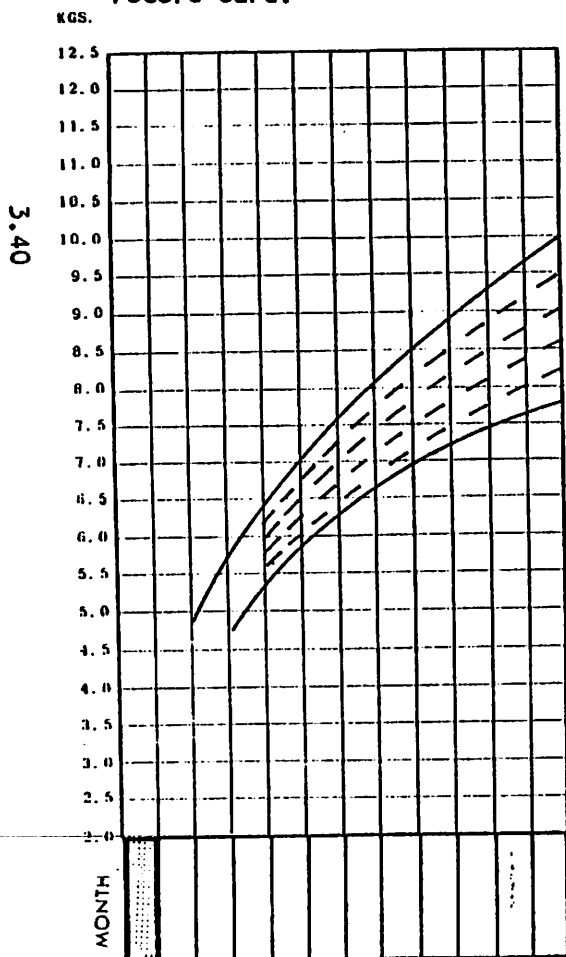
This is the tool for public display of "Vitality" progress to be posted in Health Clinic or other wall of prominence. Straight numbers of facts go in each box per month. The design will allow statistics for one full year. Dimensions of 3 feet by 3 feet should be sufficient.

HEALTH STATISTICS												
CATEGORIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BIRTHS												
DEATHS												
PREGNANCES												
FEVER												
DIARRHEA												
SKIN DISEASE												
COLDS												
PNEUMONIA												
T. B.												
Malnourished-Mild												
Malnourished-Severe												
Follow-up visits												

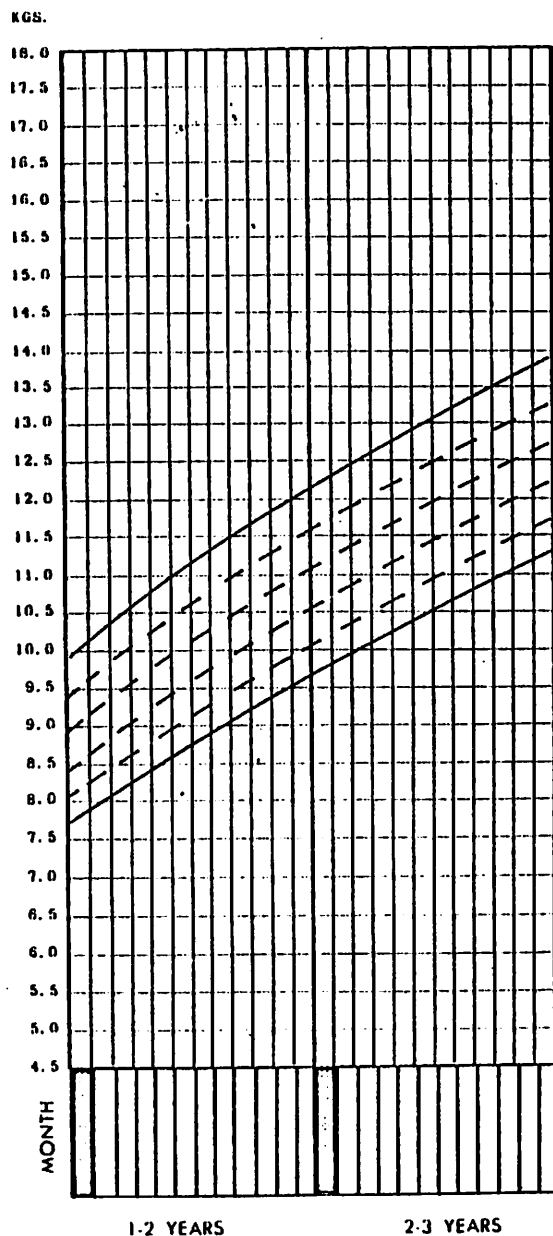
# CHILD'S HEALTH AND WEIGHT RECORD OVER FIRST FIVE YEARS

MAJOR ILLNESSES TO BE  
ENTERED ON CHART

This page and the next one can  
be mounted back to back on thin  
cardboard to form a durable  
record card.

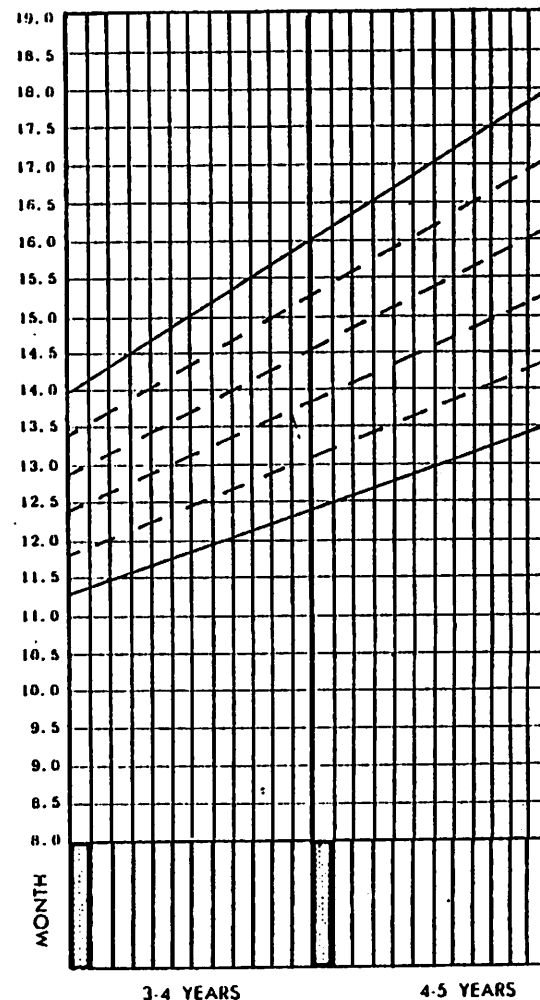


## PRE-SCHOOL HEALTH PROGRAM

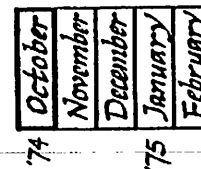


UPPER LINE—This represents the average weight of healthy  
and well-fed children.

LOWER LINE—The weight of children should be above this  
line. A steady upward progress of the weight record is  
more important than its position.



INSTRUCTIONS TO NURSE OR CLERK FOR COMPLETING  
CHART—Find out the month of birth of the child and  
fill this into all the black-edged spaces, then fill in the  
other months. Also mark off the years as shown.



When the child comes for weighing make a large dot in  
that month's column against the weight. Connect this with  
the last dot.





## PROFESSIONAL SERVICES

---

### INTRODUCTION

Once the Health Caretakers have begun working in the Stakes and once the Health Outpost has been built and supplied the next step is to gradually involve outside professionals in providing visiting services regularly to the community. Often a nurse who is backed up by a doctor will do as well as the doctor coming himself. In the Community Impact Module part of the Education Section of this guidebook ways of involving professionals are described further.

### CONTENT

- |                               |                |
|-------------------------------|----------------|
| 1. Mass clinics               | Page 3.44-3.45 |
| 2. Professional journey model | Page 3.46      |
| 3. Dental program             | Page 3.47-3.48 |



## GUIDELINES: MASS CLINIC

There are many services that can be provided through a mass clinic event. For example: maximum use of a visiting health professional, educational event for community, develops a community consensus to move on a particular health problem. Examples of these clinics might be: Immunization of all children for specific disease; screening for tuberculosis, malaria; mass treatment for a disease that everyone has.

YOUR FIRST MASS CLINIC WOULD BE DIRECTED TOWARD THE SIGNAL DISEASE IN YOUR COMMUNITY

Do you know the Signal Disease of your community? If not, refer back to Survey & Analysis.

### PREPARATION AND PUBLICITY

1. Communicate with residents the purpose of the clinic (e.g. immunization, screening); prepare people to participate; disease eradication week
2. Recruit additional volunteers to assist (e.g. health guild)
3. Make decor: enables traffic flow and is imaginal & educational in relating to the mass clinic purpose
4. Get all supplies in advance
5. Literature and educational materials to be handed out should be imaginal and there should be enough for every individual or household
6. Specific equipment not in HDP may be needed for certain mass clinics: e.g. inkind portable x-ray equipment for mass screening of TB along with qualified professional to use it

### SET UP & PROCEDURES

7. Schedule and conduct clinic by stake or smaller geographical area to prevent long waiting periods
8. Arrange space to prepare for traffic flow
9. Final training of workers and assign tasks

### HOLDING THE CLINIC

10. Have fluid refreshments on hand, if appropriate
11. Emergency first aid equipment on hand for any contingency (if professional on hand: adrenalin, portable air way)
12. Record is filled out the day of the clinic-do not wait
13. Halfway through the clinic the Health Caretaker checks attendance to assure complete coverage





## GUIDELINES: MASS CLINIC (p. 2)

### FOLLOW UP

14. Certain mass clinics will require follow up by Health Caretaker to see if people are following specific procedures: e.g. smallpox vaccination

Make it easy for the professionals so they will come back

Make it easy for everyone to be seen

Make it fun so everyone comes

A SIGNAL DISEASE DEMANDS A SIGN



#### GUIDELINES: DIRECT PROFESSIONAL SERVICES JOURNEY MODEL

The help of health professionals outside your community is important in your local Health System being able to take care of everyone's needs. When your system is fully actualized it will be connected formally to an outside Health Care Network. The journey from having little or no professional care in your village to having this regular formal relationship needs to follow these steps:

##### INFORMING & OBTAINING AUTHORIZATION

Arrange tours to regional health facilities; private doctor's offices; government health agency; hospital for Health Caretakers  
Arrange visits show the HDP document; tell the story

##### OBTAINING PARTICIPATION IN COMMUNITY EVENT

See guidelines for mass clinics  
Invite to Health Fair, (see guidelines for Health Fair)  
Invite Community Health Forum, (see guidelines)

##### DEMONSTRATING THE VISION OF PRACTICAL PARTICIPATION

Site visit; attend guild meeting  
Health Outpost tours  
Review Health Caretaker battleplan

##### SECURING A REGULAR SERVICE

Make a written request-letters  
Follow up with a visit-take Health Caretaker  
If Human Development Project far from professional's residence-prepare for overnight accommodations

##### ESTABLISHING FORMAL RELATIONSHIPS

Determine laws and health regulations  
Paramedic training  
Formal application-contract with agency, private institution, professionals, etc.



## GUIDELINES: DENTAL PROGRAM

1. Dental program is essentially preventative
  2. Concentration will be first on children and youth since they have more healthy teeth
- PREVENTION
3. Later, adult prevention will be centered on gum disease
  4. Daily tooth brushing will be taught as the cornerstone of preventive Dental care
  5. By the last quarter of the project it will be possible to have a dental hygiene training program in some villages
  6. Use of flouride is the best form of community prevention of dental problems
- FLOURIDE
7. If there is a central water supply this would be the most effective, efficient and least expensive way to supply flouride to each person
  8. The next best way to supply flouride is by use of daily or weekly flouride rinses
  9. Dental treatment will begin as soon as a local or visiting dentist is secured
- TREATMENT
10. The first phase will be extractions on emergency basis either in the village or a central location elsewhere
  11. Eventual development of restorative dentistry is desired. This might be developed through visiting area public health officials or area dental society
  12. Promotion to local dentists and authorization would be a prime task of the Health Trek Team. This dynamic can also take place in the Health Fair, by inviting dentists and students from the local dental school for a site visit.
- PROMOTION  
&  
FUNDING
13. Financing of dental program will be shared by patient and the volunteer dentist, public health dentist or local civilian dentist



## DENTAL PHASING

	Initial Program	Long-Term Program
PREVENTIVE DENTISTRY	Pre-School 1) Fluoride rinses 2) Brushing method 3) Education	Youth and Adults 1) Guild night 2) Literacy classes 3) Women's activity program 4) The causes of Caries and Gum Disease 5) Educating-Flossing-Brushing
	Grade School 1) Fluoride rinses 2) Brushing and flossing 3) Education	
FLUORIDATION	Central Water Supply fluoridation	Dental Hygienist 1) Topical application
	Fluoride Mouth rinses (if central water supply is not available). Pre-school & Grade school	
DENTAL TREATMENT	Local Dentist (emergency) 1) Finances 2) Appointment schedule 3) Extract or restore	Dental Hygienist per division (60 villages)
	Recruit Dentists 1) Local dental society 2) Public Health	Monthly visit of Public Health Department
		Regular visit at divisional level of Dental Society Dentists
NUTRITION	Incorporated with Nutrition Education	Consult with Community Kitchen to insure balanced diet
PROMOTION	Village 1) Posters 2) Health Fair	Recruitment to Health Fair 1) Local Public Health Dentist 2) Area Dentist



## LOCAL SERVICES REFINEMENT

### INTRODUCTION

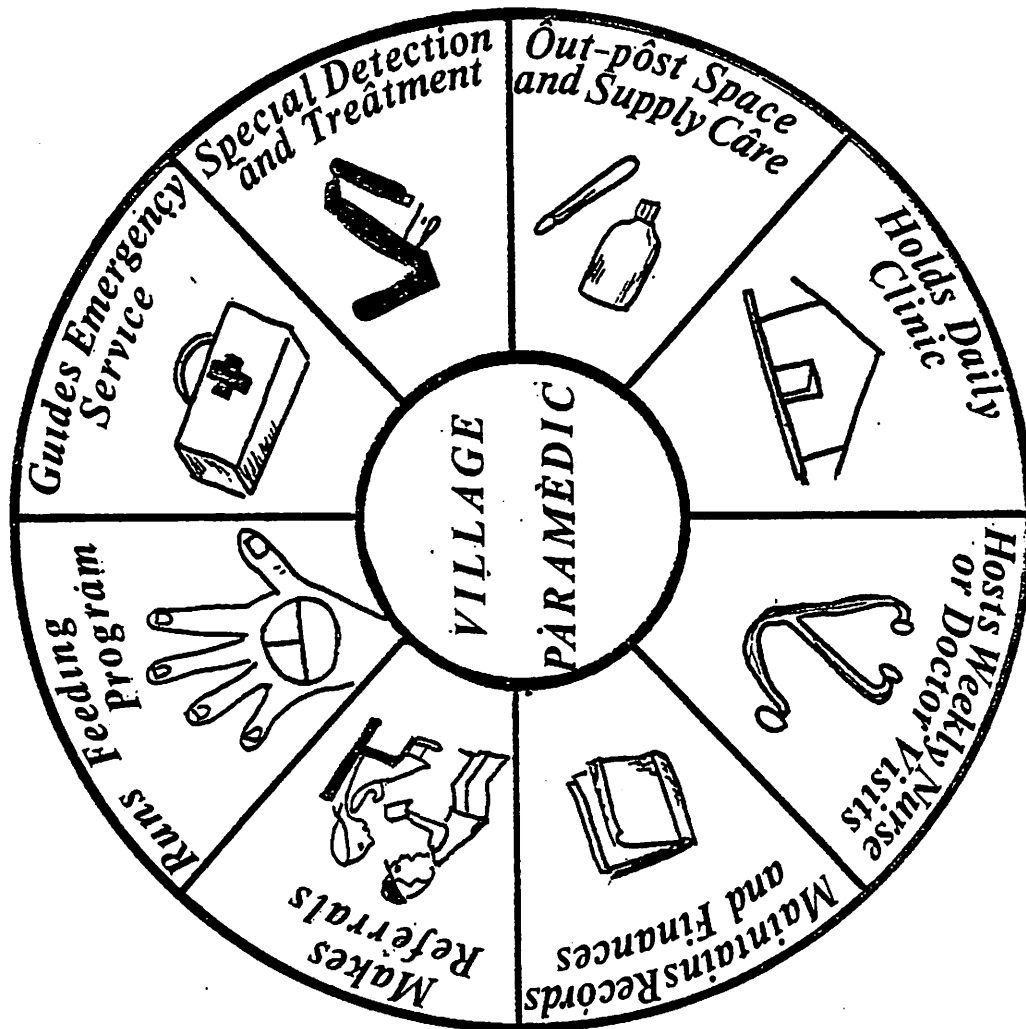
Once professionals have begun to visit the community regularly the time has come to refine the local health system and make it self sustaining. This is accomplished in three ways. The first is training the Caretakers in the use of the Symptom- Treatment Manual. You remember we suggested that the staff start using this manual to care for their own health needs early in the project. Since the Caretakers have been enrolled in literacy training now is the time to let them use it. After this the time has come to send out one to two of the Caretakers to receive training as Paramedics, and finally a local Emergency Care System is to be created.

### CONTENT

- |                              |                |
|------------------------------|----------------|
| 1. Village Paramedic         | Page 3.50-3.51 |
| 2. Emergency System          | Page 3.52      |
| 3. Sysmptom-Treatment Manual | Page 3.53-3.55 |

## ROLES OF A VILLAGE PARAMEDIC

The chart below portrays the roles played by one or two of the Health Caretakers who have received special training. This is a crucial role in the system but is not created until the Stake Health Caretakers have been working at least a year.





## GUIDELINES: TRAINING HEALTH CARETAKERS AS VILLAGE PARAMEDICS (minimum of one or two)

The advantage would be having higher standard of curative services present in the village constantly rather than on a visiting basis. This training would be done in Quarter 7 or 8 of the two-year timeline: IT IS CERTAINLY NOT A FIRST PRIORITY IN DEVELOPING YOUR LOCAL SYSTEM.

### DECISION

1. Get decision from Health guild and community polity
2. This would mean the village would pay salaries to these persons.

### CONTACTS TO MAKE

3. Contacts should be made with the health officer of your district or county health officer
4. Contact other Human Development Projects re: having regional institution train 10 to 20 village Health Caretakers in their school or facility
5. Connecting the paramedic with an ongoing back-up system is crucial; this could be a government or private network

### WHO TO SEND

6. The person(s) chosen should be one(s) who do not have other gainful employment and who desire further training
7. Develop funds for living expenses while receiving training beyond what the community is able to raise

### TRAINING SUGGESTIONS

8. Training should be about three months
9. Training may include:

malaria screening	
tuberculosis screening	
nutritional rehabilitation	injections
stool examination training	minor suturing
emergency care	midwifery



## GUIDELINES: EMERGENCY MEDICAL SERVICES

The auxillary staff may be called upon to handle or advise in an emergency. Later, the Health Caretakers will be trained to assume this role. A medical emergency is any condition that immediately or potentially threatens the life of the person involved.

### DETERMINE PROCEDURE AND PUBLICIZE

1. Determine what procedures already exist in the community and how effective they are. This includes an alarm system (drumbeat, gong, siren, etc.) plus a transfer vehicle. The health survey should help with this.
2. If there are multiple procedures in use or none at all, decide which is the best way and educate all citizens on emergency call procedure. Use imaginal posters in public buildings.
3. One or more staff people should be designated as emergency staff and they should wear identifying symbol. Their names and symbol should be on the emergency call posters.
4. A designated space for first aid (health outpost, when established) should be publicized.

### TREAT THE PROBLEM

5. A mobile first-aid kit should be maintained fully-stocked and always kept at the first-aid station.
6. A first-aid course will be taught through the health guild.
7. Staff will use "Symptom By Treatment" manual as soon as possible. The medical staff of the Health Trek trust this book and have taught it to the health guilds. You must trust it to help determine what is an emergency.
8. As soon as in-kind donations allow, equip the Health Outpost fully (see equipment list). Visit professionals who can treat emergencies in the village.

### or TRANSFER TO HOSPITAL

9. Be certain there is a transfer vehicle (ambulance) that is available at all times or can be immediately contacted (be sure everyone knows how).
10. Be sure it is safe, has fuel in the tank and air in the tires, plus a spare tire.
11. Identify at least 2 licensed drivers who know the way and road conditions
12. If not already in use, establish a referral system with the nearest hospital. Visit hospital; familiarize self with facilities.





## HOW TO USE THE 'TREATMENT BY SYMPTOMS' MANUAL EFFECTIVELY

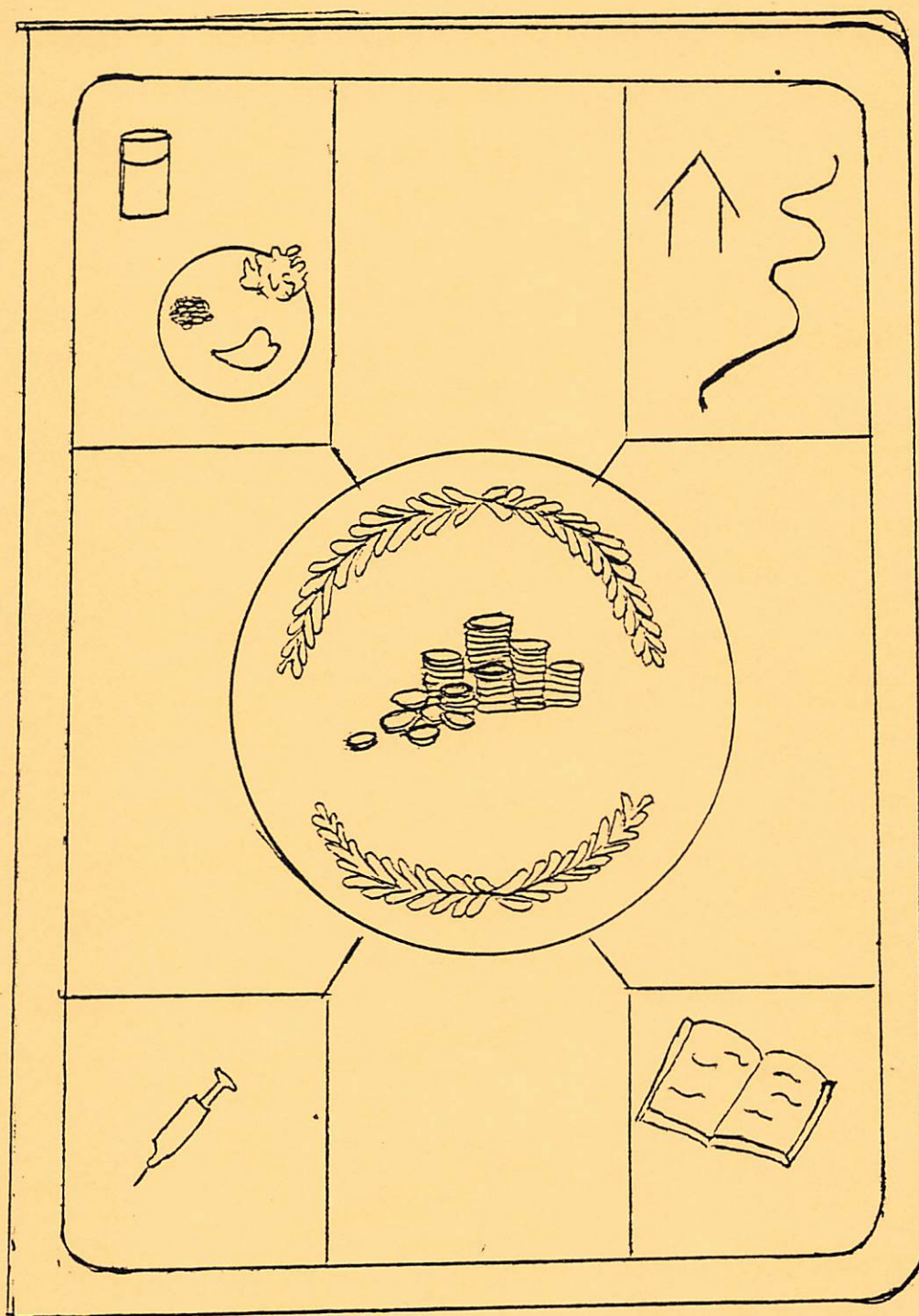
The Treatment by Symptoms Manual is an effective, easy to use tool that will allow an auxiliary member or local person with little formal health education to treat most common disease and to know when a person should be seen by a doctor. Literacy is a basic requirement.

Implementing Steps		Things To Do
F I R S T  Y E A R	STAFF CARE	<ol style="list-style-type: none"> <li>1. Request inkind drugs listed in: Guidelines for Medical Supplies Inkind</li> <li>2. Treat auxiliary illnesses by looking up the problem</li> <li>3. Follow the instructions exactly</li> </ol>
	PROFESSIONAL BACK-UP	<ol style="list-style-type: none"> <li>1. Approach visiting professional for support in implementation of use by Health Caretaker</li> <li>2. Ask him/her to teach it in classes</li> <li>3. Inkind more of the drugs in preparation for use by village</li> </ol>
	LITERACY TRAINING	<ol style="list-style-type: none"> <li>1. Health Caretakers should be entered early in literacy classes so that they may use manual in next year</li> </ol>
S E C O N D  Y E A R	INTRODUCTION TO STAKE HEALTH CARETAKER	<ol style="list-style-type: none"> <li>1. Get manual translated</li> <li>2. Print one copy for each Health Caretaker</li> <li>3. Give one to each Caretaker</li> <li>4. Explain its use</li> <li>5. Make up skits to practice</li> <li>6. Tell them to start</li> </ol>
	MAKING IT AN EFFECTIVE TOOL	<ol style="list-style-type: none"> <li>1. Label all medicines with symptom they are used for</li> <li>2. Hold weekly classes on sections of the manual</li> <li>3. Have art form conversations</li> <li>4. Demonstrate medicines</li> <li>5. Have visiting professional monitor quality</li> <li>6. Charge for medicines</li> </ol>

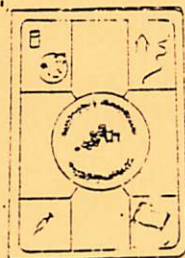


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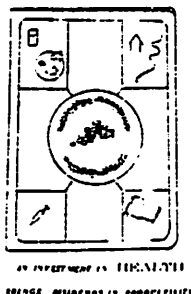
AN INVESTMENT IN HEALTH  
BRINGS DIVIDENDS IN PRODUCTIVITY



AN INVESTMENT IN HEALTH  
BRINGS DIVIDENDS IN PRODUCTIVITY

## INTRODUCTION

It is crucial that the social programs of the Human Development Projects ultimately be supported by community resources. The support of the local health system in the projects during the initial phases comes from the donations of goods and services from within the community and in kind donations from outside. The key local contribution is the volunteer labor of the Health Caretakers. During the next phase the main source of local contribution comes from fees charged for outpost and Health Caretaker services. What is not covered by these fees is raised by the other means described within this section within and outside the community. During the last phase formal affiliation with a regional government or private agency and/or local insurance plan become important.



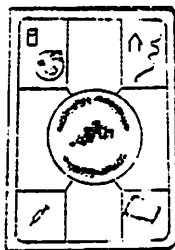
## CONTENTS

CONTEXT AND ASSUMPTIONS	Page 4.4
JOURNEY TOWARD LOCAL SUPPORT	Page 4.5
FOUR PHASE JOURNEY CHART	
KEYS TO LOCAL FUNDING	Page 4.6
INSURANCE PLAN	Page 4.7
BUILDING A SUPPORT NETWORK	
KEYS TO DEVELOPMENT	Page 4.8-4.9
FUNDING SOURCES	Page 4.10-4.13
SAMPLE INTERVIEW FORMAT	Page 4.14
PROPOSAL WRITING FORMAT	Page 4.15-4.17
SAMPLE PROPOSAL	Page 4.18-4.20
LOCAL MANAGEMENT	
KEYS TO LOCAL MANAGEMENT	Page 4.21-4.22
SAMPLE BUDGET FORM	Page 4.23
SAMPLE BOOKKEEPING FOR THE HEALTH GUILD	Page 4.24-4.25

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AN INVESTMENT IN HEALTH  
FINANCIAL MANAGEMENT IN RESPONSIBILITY

## THE CONTEXT FOR FUNDING

While it is true that you don't need to wait for money to start, the Project auxiliary and the Health Guild need to treat funding as important for a number of reasons. The end goal of the funding of any project is self-support. In the beginning, outside resources are needed to begin work in the village on any reasonable scale. Making sure of continuous support of on-going services, or of opening up new ones, is important. A broad-based system of proposals for funds within the local community and/or state or federal levels must be begun to supplement the support of village treasuries and personal funds. Lastly, as home-work for foundation/government grant proposals, the preparation of the budget and the setting up of financial record systems must be started early in the project's life. Financial records aid local management and demonstrate the project's life. Financial records aid local management and demonstrate the value of the comprehensive approach to the community's well-being.

**VITALITY IS A COMMUNITY CONCERN.**

### ASSUMPTIONS

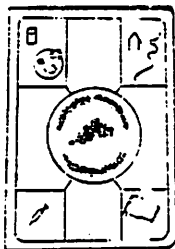
1. Good health care is both the right and the responsibility of every person. Therefore, the development of a health care system, including the economics of health, must from the beginning involve the community.
2. All approaches to outside bodies should involve a member of the community.
3. Local responsibility for financing is the goal.
4. Adequate funding will require a support network and national contacts that will give authenticity to your proposals.
5. Health must be approached as a system; i.e., all parts of health care are inter-related and any proposals should indicate your health plan (or system) and over-all budget.

**FINANCING IS LOCAL RESPONSIBILITY.**



JOURNEY TOWARD LOCAL FUNDING				
	GETTING STARTED	DEMONSTRATING	REFINING	SELF SUFFICIENCY
NON-CASH	Secure time, space, supplies from village and near-by urban center (see screen	Set up system with Guild to get and use Material gifts	Explore potential of service net work through contacts in labor unions, professional societies, and tradesmen	Establish volunteer program of local guild workers, regular professional visits, and trade and craft expertise
LOCAL SOURCES	Hold a celebrative money raising event Work Projects Establish symbolic fee for health services Approach Agriculture Guild for food donations	Request each stake to raise money through contributions and special events. Approach with the Guild nearby Industries for financial support Develop a network of continuous support from individuals and businesses	Study several tax plans and insurance programs as possible funding options	Guild to build local support structure Alternatives: community tax community treasury insurance plan continued money raising. Establish health outpost and other programs as self supporting
OUTSIDE SOURCES	For seed money approach government and private sources Guild reviews budget and proposals from Consult Identify possible grants	Develop outside network of individuals and businesses and institutions for support Develop relationship with area health structure Prepare and submit proposals (for grants)	Review and refine proposals	If available, establish health outpost and public works as part of government program Contact formal application.
	Select accountant who works with Auxiliary Acc't Begin literacy training with Guild	Training in budgets, proposals, bookkeeping Apprentice program Walk thru proposals with Guild	Review & refine with the Guild budget and accounting System.	Village leadership takes full responsibility with the auxiliary as a consultant. Provide experience in developing and telling the project story.

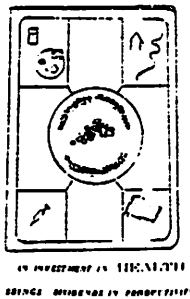




## KEYS TO LOCAL FUNDING

1. Begin with community building projects such as:
  - A. Work projects to prepare community garden, build out-post facility, dig wells
  - B. Money raising events: raffle, food sale, entertainment, door to door requests
  - C. Secure assistance and materials from nearby urban area to back-up the community effort
2. Establish a symbolic fee for health services. The fee grounds individual responsibility for corporate health services. Use a sliding scale based on family resources.
3. Approach other guilds (such as agriculture) to contribute to health maintenance.
4. After the above efforts have demonstrated a sense of community responsibility, then begin to develop more structured and on-going sources:
  - A. Community treasury, designating a portion of the treasury for health care
  - B. Possible tax structures-If viable, designate a portion of local taxes for health care
  - C. Insurance program- This is very problematic and complicated but may be appropriate in some communities (see description of insurance program)
  - D. Community chest for voluntary contributions

**LOCAL FINANCING ASSURES LOCAL MANAGEMENT.**



## EXAMPLE OF INSURANCE PLAN ANALYSIS SCREEN

The insurance plan outlined is given as an example of one possible option for covering all or part of a family's health care. Please note that any such plan presumes a steady income, and that most plans are functional only for out-patient services. An insurance plan should not be considered except in conjunction with the commercial guild, at a late point in the 2-year phasing of the project, and after precise records of medical costs per family up to that date are available as a working basis.

### SERVICE COSTS TO COMMUNITY

	<u>YEARLY COSTS</u>
HEALTH OUTPOST CARE (Care for all villagers; supplies, medicines, salaries \$168.00 per month . . . \$	2,016.00
OUTPATIENT VISITS (150/year, \$30.00/visit). . . . .	4,500.00
INPATIENT VISITS (Surgical - 30/year, 1 week stay and surgery, @ \$810.00) . . . . .	24,300.00
(Medical - 30/year, room and medicine 1 week, @ \$210.00). . . . .	6,300.00
<b>TOTAL</b>	<b>\$ 37,116.00</b>

### COSTS OF INSURANCE PLANS

	<u>YEARLY COSTS</u>
FAMILY INCOME PER YEAR (\$680.00 @ 250 families) . . . . .	\$156,400.00
Cost per family at current income . . . . .	158.00/year
for total health insurance, . . . . . (or .23% income)	13.00/month
providing free care on all levels . . . . .	2.80/week
Cost per family at current income . . . . .	28.33/year
for prepaid outpatient and HOP service . . . . . (or 4% income)	2.40/month
	.60/week
Cost per family at current income . . . . .	83.11/year
for prepaid insurance HOP . . . . . (or 12% income)	7.00/month
out-patient/hospital non-surgical fees . . . . .	1.70/week

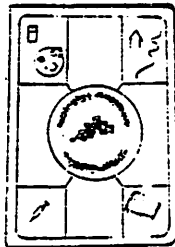
### H O P FINANCES

2 paramedics @ \$30.00/month
1 nurse/1 day/week @ \$20.00/month
Medicines, supplies, \$60.00/month
Heat 4.00/month
Water 1.00/month
Maintenance 1.00/month
Travel 2.00/month

### FEES FOR SERVICES

Hospital/day - \$4.00/day
Injections - \$6.00/5 days @=3/day
Minor surgery - \$20.00
Clinic tests - \$4.00
Cast - \$20.00
Skull X-ray - \$20.00
Shoulder X-ray - \$26.00
Leg X-ray - \$16.00
Oral medicines - \$1.20/day

The implication of the above information is that any insurance plan should cover only outpatient services.



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BRINGS DIVIDENDS IN PRODUCTIVITY

## KEYS TO DOING DEVELOPMENT

**A GOOD STORY IS SIMPLE, IMAGINAL AND DIRECT.**

The development of external support for health programs is a method of providing for new services to enhance the vitality of a community. It also enables a broad base of individuals and institutions to invest in significant social change which will ultimately increase the general economic productivity. The story of the human development project and the dramatic program for improvement of health in the villages is an exciting sign of hope and is key to successful fund raising. This story is supported by letters and quotes from prominent people affirming the work. It can be further reinforced by an invitation to visit and tour the project. A good story is simple, imaginal (vivid illustration of improvement), and direct in regard to financial request. In making a request for support it is important to be specific both in the need to be met and in what you are asking for. The developer must be thoroughly knowledgeable in his program and budget and have in mind where this request fits into the whole scheme.

The developers will be a team composed of an auxiliary and a village resident who can witness to the transformation of the village and the need to be met. Important to the initial impact as well as the image of the project are the manners and dress of the developers. Clothing should be appropriate to the seriousness of the project for human development across the globe. This may mean that the developers will require enablement in having suitable clothing. In one village the Health Outpost auxiliary had one good looking blue shirt which was set aside as the "Development Shirt" and given to whoever was assigned to development that day!

For non-cash donations it is helpful to have a screen of types of goods readily donated. Here is a sample, but it may be adapted for your particular country. In underdeveloped countries most of these categories would apply best to large international industries.

**NEARLY ANY SUPPLY NEED CAN BE MET  
THROUGH NON-CASH CONTRIBUTIONS.**



DEPARTMENT OF HEALTH  
SERVING THE PEOPLE

## Key To Doing Development (cont'd)

### INKIND GOODS SCREEN

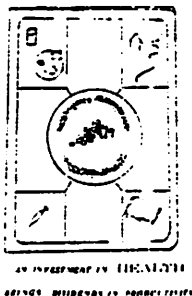
BENEVOLENT DONATION	DAMAGED GOODS	SECOND HAND
SURPLUS	GOODS WITH FLAWS	PHASED OUT

HEALTH PROJECTS ARE NOT SELF-SUSTAINING  
WITHOUT A SENSE OF COMMUNITY OWNERSHIP

The following chart indicates appropriate sources of  
various needs. (see next page)

# FUNDING SOURCES

	SEED-MONEY AND OPERATING FUNDS	LARGE EQUIPMENT	HAND TOOLS	SUPPLIES AND FOOD STUFF	SPACE	SERVICES
EXTERNAL	Federal/state health/welfare agencies; federal/state agricultural department; WHO; Labor Unions; Individual donations/trusts	Service clubs example: Rotary, Lions, Civitan; Professional societies example: M.D., Nurse, Dentist; Churches/church-related groups; (Memorials) CWS, CROP, CARITAS, LWS	LABOR UNIONS	Church-related groups; Medical/pharmaceutical supplies; Plumbing supply companies; Seed/nursery stock suppliers; Food processors	Government allocation	WHO; UNICEF; Federal/state agricultural dept.; Federal/state health/welfare agencies
INTERNAL 4.10	Taxation; Treasury allocation; Pre-pay/group Health insurance; Service fees; Funding events i.e. health fair, sale of snacks, garden surplus		Labor union/syndicate; Borrowed locally	Local farm and garden produce	Local church; Community work days; Local school; Volunteers, short term Long-term land lease; No-rent/symbolic rent space use; Vacant store, etc.	
NON-CASH		Loaned on No-Fee basis; Building materials, wire, pipe, etc.	Loaned by city/county agencies; Outright gift, New/2nd hand	Wholesalers of processed foods; Wholesalers of towels, blankets, bedding; Dairies; Bakeries; Agricultural suppliers/ Chicken farmers; U.S. Surplus Commodity		Expertise in plumbing electrical wiring, etc.; Monthly/weekly doctor/dentist visits



## FUNDING SOURCES

FUNDING IS A PROCESS OF JOINING  
INTERNAL AND EXTERNAL RESOURCES.

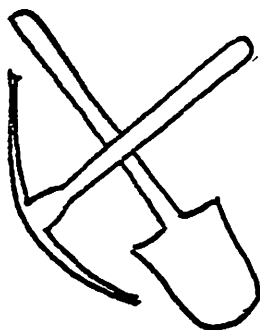
### Seed Money and Operating Funds

For seed money and operational expenses, as for example salary grants, good sources are the federal/state health/welfare agencies and the federal/state agricultural departments. Public works projects can be funded by states where appropriate. Possible connections with existing state or federal health agencies, or with their extended services, should be explored. Trade union groups could underwrite specific programs such as mosquito control or a demonstration home. For continuing income, trust funds established by individual donors are excellent. Within the community, a treasury allocation may be obtained as seed money; a special tax may be levied for specific purposes, such as a tax on cigarettes or beer to be used for sewage pipes; pre-pay group insurance fees and a sliding scale fee for service could net modest but steady sums for operating expenses. Funding events, such as a health fair, sale of nutritious snacks at sports events, etc., and sale of garden surplus are further possible sources of revenue.



### Hand Tools

Labor unions may well be an excellent source of funding for tools and even for gifts of new or used tools (tools from trade may be borrowed for initiating periods of time). Garden tools can be borrowed from city or county agencies, as well as from within the village itself.





AN INVESTMENT IN THE FUTURE  
DESIGNED BY J. J. J. J. J.

## Funding Sources (cont'd)

### Supplies and Food Stuffs

Many supplies can be obtained through non-cash contributions. Nearly any supply need can be met in this way. If time is given to establishing a large network of donors who may even supply on a regular basis, the non-cash supply method is very effective. Items readily given away are goods with small faults (seconds), leftovers, used goods to be retired, and surplus. Check non-cash sources such as restaurants, churches, hotels, and hospitals for dishes, utensils, and cutlery for the kitchen. Clinic supplies may be obtained from hospitals and pharmaceutical companies. Towels, bedding, and blankets are often available through hotels, hospitals, and supply houses. Sanitation supplies could be found through plumbing supply companies and government services. For instance, in some areas there are government pest control programs which could be engaged.



The goal is providing foodstuffs is to secure them all locally, making sure that the community is providing adequate resources to meet its nutritional needs. However preliminary provision for feeding programs can be obtained through church-related organizations, such as Catholic Relief or Church World Service, or surpluses and dented cans from canneries. Consideration may be given to investigating local connection to U.S. surplus commodities program. Seeds and fertilizer may be donated through seed companies and nurseries. Several projects have received chickens and goats from agricultural supply companies. In large metropolitan areas surplus vegetables, fish, baked goods, and other perishables from wholesale markets can be made available. The local community should not be ignored, as contributions of home grown vegetables, milk, grains are an excellent way of participation in the

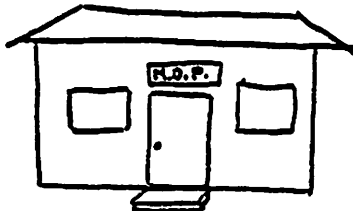


AN INVESTMENT IN THE FUTURE  
SOURCE: DISSEMINATION IN PEOPLE'S LIVES

## Funding Sources (cont'd)

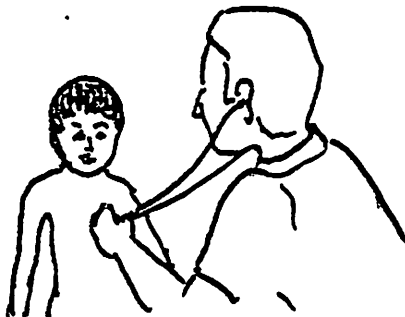
### Space

Facilities for health care need not be elaborate. A clinic can be established in a local church, school, or community room. Long term land use or building use can well be made available without cost for the village garden.



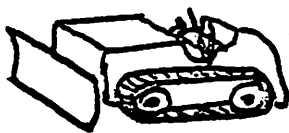
### Services

For the initial stage you may make extensive use of external sources. Make contact with the United Nations agencies, the Health Systems Agency (USA), and area hospitals. Fees (however symbolic) for health services should begin to be programmed into the service for payment of expenses. Contact small craftsmen or trademen in local area for expertise in plumbing, brick laying, wiring, etc. Trade unions may also be a source of assistance.

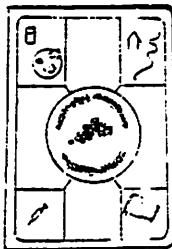


### Large Equipment

Large equipment is of such immediately recognizable value to the community project that it is often an attractive proposal for churches, church-related groups, professional societies, and service clubs. Large equipment are some examples of such donations. This equipment may also be borrowed from hospitals, churches, restaurants and schools. Heavy machinery such as tractors, bulldozers and compressors can often be borrowed from public works departments on a no-fee basis. Building materials such as cement, wire, wood, pipe, and brick can often be obtained as non-cash contributions.







AN INTERVIEW IN THE FIELD  
BRIDGE DISTRICTS IN FORMER TIMES

## HOW TO DO A WINNING INKIND CALL

Hello, My name is \_\_\_\_\_ and I am a member of an \_\_\_\_\_  
\_\_\_\_\_. We have just been given a garage to use to learn how to  
work on cars. Do you have any old or used tools that you don't use  
anymore that we could have?

WAIT FOR RESPONSE

\*\*\*If 'YES', say "Thank you. When can we pick them up? What is  
your address?.....What is your name?....."

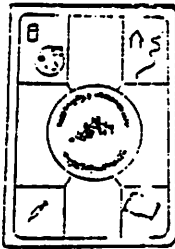
\*\*\*\*If 'No', say "Then do you have any use tools that you would give  
us a good deal on?"

WAIT FOR RESPONSE

\*\*\*\*If 'YES', Read them your list, one at a time, and ask them how  
much.

\*\*\*\*If 'NO', tell them 'Thank you, anyhow, and ask them who they know  
that might have some tools like you want and that you could call. Ask them  
for their name and phone number.

\*\*Before you end the conversation, be sure that you have all the information  
that you need---like where to go and who to see.



## PROPOSAL - WRITING FORMAT

### Context for Proposal-Writing

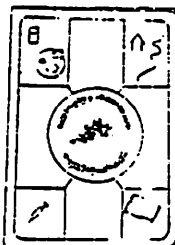
A proposal is a response to the donor's articulated and unarticulated questions to the Developer. As such, it should answer the six basic questions:

WHAT are you doing?  
WHY are you doing it?  
HOW are you doing it?  
WHERE are you doing it? and  
WHO are you (anyway)?

A proposal is always written in multiples of threes--3, 6, or 9 Paragraphs is ideal, but don't shoot rigidly for a given number of paragraphs--shoot for clarity in the three basic arenas.

Values to hold in your writing are the following:

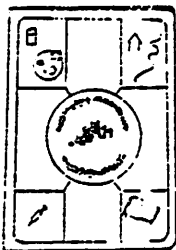
1. Answer the reader's questions--consider the sequence in which the questions are likely to be raised; speak to his cynicism.
2. Emphasise the tangible--what concrete changes you anticipate; what specific benefits donor companies would gain.
3. Remember in your choice of vocabulary to use simple English. Eliminate jargon, and any other technical terms which might be unfamiliar to the average reader.
4. Write scientifically, i.e. with precision. Each sentence should communicate a piece of information. Check your sentences to see that every one is as short and direct as possible.
5. The facts of our work are in themselves astounding. Do not try to add to their significance by using emotional or peculiar ways of talking about it.
6. A proposal is for the sake of acquiring funds, not educating the reader or changing his stance. Simply present the information from his standpoint, honoring his biases, as authentically as you can, even if you disagree with his biases.
7. Do not underestimate our revolutionary principles--they are what make our work effective, and need no apology. They do need to be spelled out clearly for those who may find them unfamiliar.



## PROPOSAL - WRITING FORMAT

Use the following questions to workshop your 9 sentences:

WHY	<p>1. <u>TRENDS</u></p> <p>a. What are recent social trends in your area?</p> <p>b. What broad social issues does your project address?</p> <p>c. What are people saying about this issue?</p>
	<p>2. <u>SITUATION</u></p> <p>a. What are the basic statistics on your location?</p> <p>b. What is it that makes your location unique?</p> <p>c. What particular social resources &amp; pressures are there?</p>
	<p>3. <u>NEED</u></p> <p>a. What are the basic blocks in your location?</p> <p>b. What is the key contradiction?</p> <p>c. How are the blocks and contradictions dramatised?</p>
WHAT	<p>4. <u>PROGRAM</u></p> <p>a. What is the one thing you are doing?</p> <p>b. What are the major program arenas?</p> <p>c. What is unique about this program?</p>
	<p>5. <u>METHODS</u></p> <p>a. How will the program be lead and create future leadership?</p> <p>b. How are decisions made?</p> <p>c. How do you "keep going"?</p>
	<p>6. <u>ANTICIPATED RESULTS</u></p> <p>a. What will be changed within the first year?</p> <p>b. What will be changed in five years?</p> <p>c. What changes will occur in people in the process (eg training)?</p>
HOW	<p>7. <u>STAFF</u></p> <p>a. What experience does ICA/EI have in this arena?</p> <p>b. What other successes has ICA/EI achieved?</p> <p>c. How are we equipped to do the job?</p>
	<p>8. <u>COST</u></p> <p>a. What is the total program budget?</p> <p>b. Where will the rest of the money come from?</p> <p>c. How much is needed from this donor--for what?</p>
	<p>9. <u>BENEFITS</u></p> <p>a. What will the donor receive by way of public image?</p> <p>b. What improvements in business climate will he benefit by?</p> <p>c. What concerns of his does this program address?</p>



DEPARTMENT OF HEALTH  
SERVICES DIVISION OF PROPRIETARY

## PROPOSAL - WRITING FORMAT

A Proposal is:

3 Paragraphs composed of 9 Sentences\*

(and that's all!)

<p><u>WHY</u></p> <p>The first paragraph states the broad and particular social circumstances and needs which your proposal is addressing.</p>	<p>1. <u>TRENDS</u></p> <p>What is going on today in the arena of your concern?</p> <p>2. <u>SITUATION</u></p> <p>What are the particular circumstances of your project location?</p> <p>3. <u>NEED</u></p> <p>What are the critical needs, the problems that people are struggling with?</p>
<p><u>WHAT</u></p> <p>The second paragraph states what your work is; what you intend to accomplish, and what you are now doing.</p>	<p>4. <u>PROGRAM</u></p> <p>What is the system of action that you are doing to meet the needs?</p> <p>5. <u>METHODS</u></p> <p>How are you going to accomplish what you propose? (How will you overcome pitfalls?)</p> <p>6. <u>ANTICIPATED RESULTS</u></p> <p>What concrete changes are you making-- over what length of time?</p>
<p><u>HOW</u></p> <p>The third paragraph tells what you need to do your program, and who we are. It is very important here to state the benefits of your work to the donor.</p> <p>*This can also be 3 sections, with any # of paragraphs.</p>	<p>7. <u>STAFF</u></p> <p>Who is the ICA/EI? Who is doing this work locally?</p> <p>8. <u>COST</u></p> <p>What will the entire program cost, and what of that are you requesting from this donor?</p> <p>9. <u>BENEFITS</u></p> <p>What will the donor (and his business) gain as a result of making a gift? What do they gain from the project in any case?</p>



AN IMPACT ON HEALTH  
SINCE 1975 IN KAWANGWARE

## PUBLIC SANITATION PROPOSAL

The past decade has seen a world-wide movement of people, who experience themselves as isolated from the social-economic structures, striving to assume responsibility for their own self-support and self-reliance. This is exemplified by the Kawangware Human Development Project. The five communities of the Kawangware Human Development Project located on the outskirts of Nairobi contain 25,000 residents. Sixty per cent of which are unemployed and 40% illiterate. These communities between the urban-rural areas are unfortunately continually growing pockets of unemployment, poverty and disease. At the beginning of the project in December 1975, the health of the people was severely hampered. Many children and adults despite a well structured government programme were without complete immunizations. Tragic debility and death were still occurring from preventable polio, measles, and tetanus. The infestation rate with intestinal parasites was 70% and hookworm infection among children 60%. Some 17 cases of tuberculosis were reported to the government clinic each month. Birth control was not being practiced. Children with malnutrition and death of mothers in childbirth were common. The only knowledge of dental care was that of extraction. The vitality of a people is a critical factor in community development. It depends on physical health and social motivation.

Throughout the first year and a half of the project implementation of many programmes has begun to indirectly alter this situation. One such programme is a group of local residents called the Public Work Corps whose job is to assist in building and maintaining drainage. In the past month a direct assault was mounted through the initiation of a local HealthCare Network. The health care system has been initiated as the first of the KHDP's five geographic communities. A team of specialists has implemented local health structures through intensive one month practical training to 30 residents of the Muslim Riruta Village in sanitation, nutrition, immunization and basic treatment. These men and women have begun to demonstrate a significant impact on unhelpful attitudes and beliefs throughout the broad population. They meet weekly to continue their training and discuss problems of common concern. They conduct a monthly "under-fives" clinic for children of the village and refer those needing care. Their classes are taught on a volunteer basis by professionals from several Nairobi health institutions. They have begun to extend the effectivity of the Government clinic in Kawangware through local follow-up and referral and to promote better sanitation and nutrition practices. As the KHDP stands in its second year great advances have been made in the physical rehabilitation, training, and economic development of the community. The vitality of the community is improving as demonstrated in local leadership taking over ongoing management of many programmes.



AN INVESTMENT IN THE FUTURE  
BRINGS DIVIDENDS IN PROSPERITY

## PUBLIC SANITATION PROPOSAL

The approach of the Institute of Cultural Affairs, sponsors of the Kawangware Project, based on 15 years of work in similar communities around the globe is to deal with all the problems at once. The community is rebuilt with a comprehensive programme that involves initiating local care structures, physical rehabilitation, intensive training, and local economic development with the aim of fostering local self initiative and self sustenance. Thus, external support which is so crucial in the beginning of a project is gradually phased out over a 4 year period as the local community becomes increasingly capable in both leadership and resources to assume self-support. The problem of sanitation is therefore being approached through 4 arenas. Two already mentioned were the Public Work Corp and the Health Care-takers. The third component is the construction of a cement garbage disposal unit geographically dispersed so one exists among the 20 homes that are cared for by each caretaker. The fourth component calls for the construction of a facility complex, one per thousand people with 2 toilets, 2 showers and a large basin for laundry and washing. The local contribution to these components will be labour and maintenance by the Public Work Corps and neighborhood education by the Health Caretakers. The support of the construction of the essential facilities is needed from a variety of supporters in the public and private sectors. The community has the land and the manpower. What is needed now are the facilities and equipment such as garbage disposal units, toilets, showers and laundry complexes which will make improve further the physical well-being of the communities by decreasing infectious diseases, parasites and malnutrition.



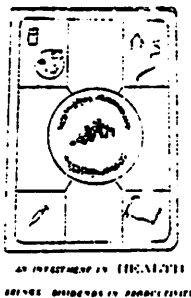
MINISTRY OF HEALTH  
GOVERNMENT OF KENYA

# PUBLIC SANITATION

Kawangware Human  
Development Project

ITEM	TOTAL No.	COST/ITEM	TOTAL COST	TOTAL No.	COST/ITEM	TOTAL COST
Garbage Disposals	6	27/=	162/=	72	27/=	1,944/=
Toilets	2	27/=	54/=	22	27/=	544/=
Foundation	2	81/=	162/=	22	81/=	1,782/=
Septic Tank	2	108/=	216/=	22	108/=	2,376/=
Wood	2	450/=	900/=	22	450/=	9,900/=
Muram Block	2	750/=	1,500/=	22	750/=	16,500/=
Piping	2	250/=	500/=	22	250/=	5,500/=
Heating Equipment	2	500/=	1,000/=	22	500/=	11,000/=
NET COST			4,494/=			49,596/=
			\$ 561.75			\$ 6,199.50

TOTAL COST STAKE 1 - MUSLIM VILLAGE ALONE		TOTAL COST KAWANGWARE, INCLUDING MUSLIM VILLAGE	
EQUIPMENT	MURAM PRESS 5000 shs MISC. TOOLS 5000 shs	EQUIPMENT	2 MURAM PRESSES 10,000 shs MISC. TOOLS 10,000 shs
NET BUDGET TOTAL	4494 shs	NET BUDGET TOTAL	54,090 shs
TOTAL	14,494 shs	TOTAL	74,090 shs
	\$1811.80		\$9261.00



## KEYS TO LOCAL MANAGEMENT

PREVENTIVE HEALTH CARE IS BOTH CHEAPER  
AND MORE EFFECTIVE THAN CURATIVE CARE.

### Local Management

From Day One it is essential to lay the groundwork for local community control and management of the health budget. It is proposed that the health guild be given this task and that beginning with the first health project the auxiliary raise the economic question with the guild on each project.

In the initial stages it would be wise to help the guild have a successful experience in raising funds so that they can begin to conceive of themselves as capable of financial ability. This may simply be selling homemade products but it is important that this happen early. Eventually they should act as an advocate of health by negotiating use of agricultural and commercial profits for health care through the village treasury. A strong case can be made for vitality greater productivity.

Developing local responsibility will require training and tutorage in basic bookkeeping and record maintenance. The health questionnaire should be used in developing proposals (teach the process of assessment and need identification).

Developing a sustaining financial structure will require exposure to a wider context than the local community. This means that the auxiliary needs to acquaint community leadership in how to make financial proposals to government and corporations. It also means helping the guild to relate to whatever area or regional health planning structure exists. This is particularly true in U.S. projects. The entire nation is now divided into health service areas and a Health Systems Agency exists in each. Federal law requires local input to these structures, which will increasingly exercise control over what will be built in each area as well as have access to federal funding. This new federal law gives clout to local consumer organizations and can be a valuable vehicle in developing the guild (providing it with a way to relate to the wider system). The guild in such a system should see itself as a health planning body and as a part of a larger planning process which now exists under the Health Systems Agency. Other nations are striving to increase the input of local community into overall planning and many have similar opportunities for guilds to relate to the National Planning System. By stressing





AN INVESTMENT IN HEALTH  
BRINGS DIVIDENDS IN PRODUCTIVITY

## Keys To Local Management (cont'd)

economics with the health guild you will produce a better system because preventive health care (as distinguished from curative) is both cheaper and more effective.

**GREATER VITALITY EQUALS GREATER PRODUCTIVITY.**



## SIMPLE HEALTH GUILD BUDGET

The budget is an estimate of cost of goods and services required to activate the guild's plans. It is divided into major long term expenses, wages and fees, and on going operating costs. The guild should estimate its minimum monthly costs. At the end of the month the actual expenses can be compared with budget in order to aid in producing the next month's budget.

Year _____		Month _____	
GUILD BUDGET			
Categories		Minimum Monthly. Operating Costs Projection	Actual
Capital Costs (major equipment and mater- ials)			
WAGES & FEES			
OPERATING EXPENSES  (rentals, power, fuel, Mainten- ance)			



AN INVESTMENT IN HEALTH  
BRINGS DIVIDENDS IN PROSPERITY

## SIMPLE BOOKKEEPING FOR THE GUILD

There are four simple forms which enable the guild to keep financial records. These deal with orders placed and accounts payable, accounts receivable, the cash journal, and weekly situation statement.

### FINANCIAL RECORDS AID LOCAL MANAGEMENT.

#### FORM I

Orders and payables are listed with their order numbers and given a budget category at the side of the page. As invoices come in estimates are crossed out and actual values entered. When invoices are paid they are checked off and a line drawn through the entry. A light colored felt-tipped marker is good for marking out the entry.

ORDERS PLACED						
DATE	NAME	*ORDER NO.	ESTIMATED VALUE	INVOICE VALUE	PAID	ALLOCATED
9/7/77	Jones Hardware	25	\$ 8.50	\$ 8.56		Supplies
7/8/77	Bonds Surgical	26	10.00			Supplies
7/8/77	Standard Oil	27	10.00	9.25		Fuel

\* Assumes Order Book



DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## Sample Bookkeeping For The Guild (cont'd)

### FORM II

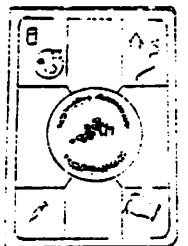
Accounts receivable—moneys due to the guild for services or products—are held in the following form and checked off and marked out as paid.

ACCOUNTS RECEIVABLE					
DATE	NAME	VALUE	PAID	DATE PAID	REC.* NO.
7/6/77	George Edwards	\$ 1.00			
7/9/77	Box Factory	20.00		6/28/77	32

### FORM III

The cash journal lists both receipts and payments on one page and provides a space for budget categories for breakdown of expenditure. A running balance is kept and the balance at the end is carried forward to the next page.

CASH JOURNAL									
DATE	Item	Check/Receipt	Re-ceipts	Pay-ments	Bal-ance	Budget Categories Breakdown			
7/5/77	Balance Forward				\$1000.00	WAGES	SUPPLIES	FUEL	RENT
7/7/77	Jones Hardware	729		\$250.50	749.50				
7/9/77	Guild Receipts	52	\$20.00		769.50				



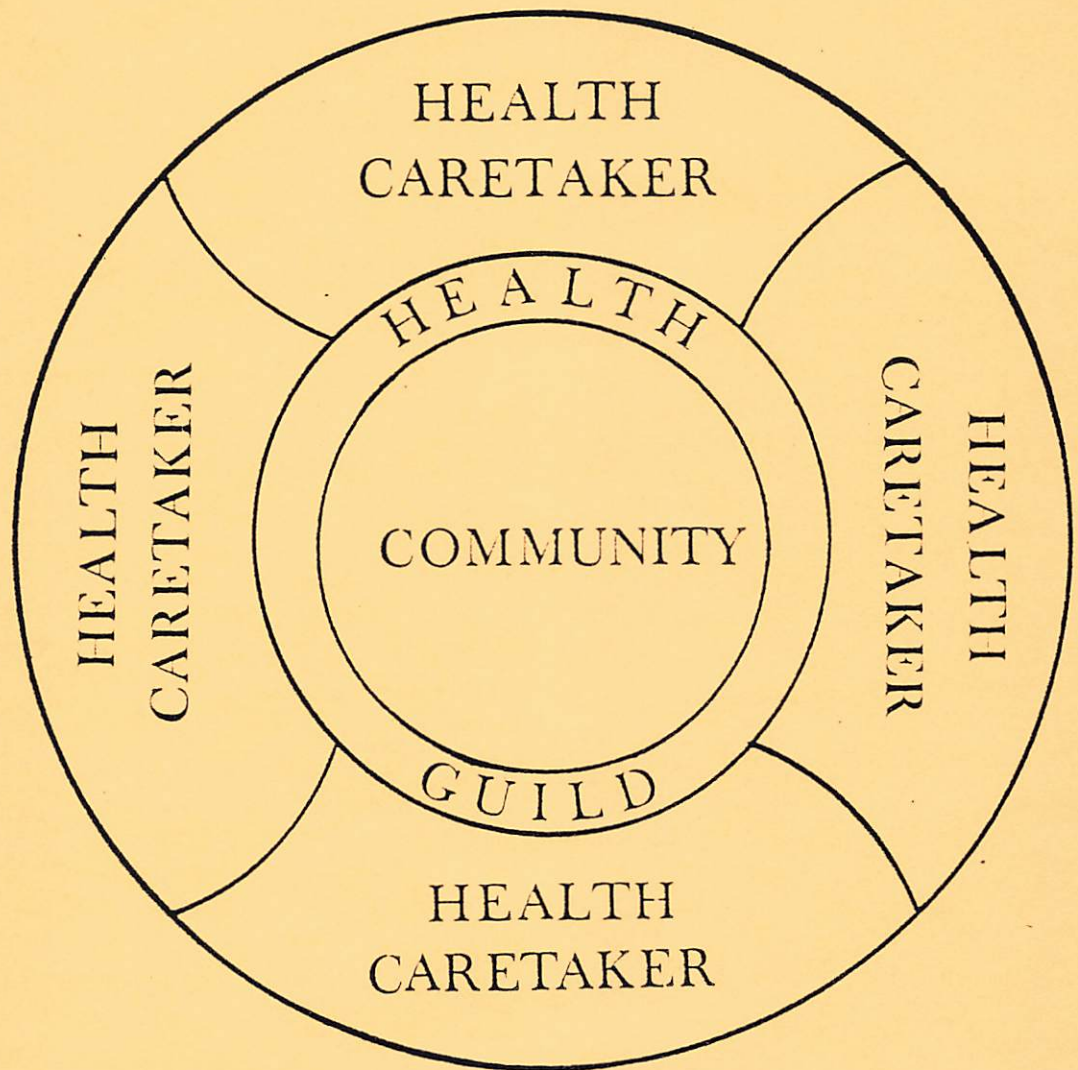
AN ORGANIZATION OF THE NATIONAL  
MUSIC TEACHERS ASSOCIATION

## Bookkeeping For The Guild (cont'd)

### FORM IV

The weekly situation statement takes the transactions on the cash journal over the period of one week, subtracts from them the outstanding debts and anticipated debts from orders placed and shows, then, the available working funds in the guild's account. Accounts receivable are added to show potential available funds.

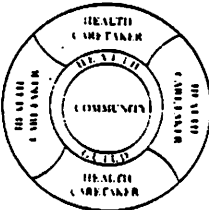
WEEKLY SITUATION STATEMENT	
Balance Carried Forward	1000.00
Receipts	20.00
Payments	250.50
Current Bank Balance	769.50
Subtract Outstanding Orders	-19.25
Available Funds	750.25
Accounts Receivable	1.00
Actual Situation	751.25



HEALTH EDUCATION  
FOR  
EVERYONE



This manual was created by  
the Health Care Task Force  
of the Global Research  
Assembly of the Institute of  
Cultural Affairs, July, 1977.  
First published as part of  
the Guidebook for the  
Renewal of Village Vitality  
IN August, 1977. In complet-  
ing this manual we borrowed  
extensively from the experi-  
ence and writings of others  
in the field and intend that  
this material be freely  
available to those working  
in community development.



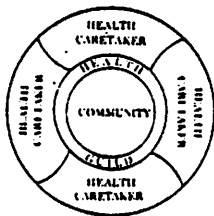
HEALTH EDUCATION  
FOR  
EVERYONE

This section contains the tools which will help you to do the education necessary in your community to build local health structures which will care for every person. First of all, there is the daily curriculum and workshop guidelines for the three weeks intensive training that begins the Stake Health Caretakers System. Next is the section of Modules that the Health Guild can use to impact the whole community every month for twenty-four months to bring about new awareness and the engagement of the community in caring for its vitality. Included among these modules is a detailed outline of the construct used by the Global Health Acceleration Team in its one month visits - this is called the Health Emphasis Month Module, and it can be done by the Guild whether an acceleration team comes or not. And finally, in this section is a copy of the Health Caretaker's Manual which when copied, translated, and given to each Health Caretaker will be a tool which he can use whether or not he is literate to give practical care to the community.

#### CONTENTS

1. Health Education in Human Development Projects	5.2
2. Phasing Chart	5.4
3. Health Caretaker Training	5.5
4. Guidelines for Guild (The Monthly Community Impact Modules)	5.39
5. Bibliography	5.78
6. Health Caretakers Manual	5.79



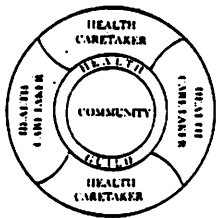


HEALTH EDUCATION  
FOR  
EVERYONE

## HEALTH EDUCATION IN HUMAN DEVELOPMENT PROJECTS

### Education Functions of the Health Auxilliary

1. To ground the Auxilliary in the basics of health care so they can begin to demonstrate vital health practices and to begin the community involvement program.
2. To assist village leadership in selecting citizens from each stake to be Health Caretakers and to enable the Health Caretakers training.
3. To form and train a Health Guild which will be the core of health leadership made up of Stake Health Caretakers and local citizens working in the areas of nutrition and sanitation.
4. To enable the Health Guild to take responsibility for healthful sanitation, balanced nutrition and a health system which develops and maintains vitality for all citizens.
5. To assist community health leaders in selecting local citizens for paramedic training so that the level of trained local people can be increased during the two year period.



HEALTH EDUCATION  
FOR  
EVERYONE

## BASIC CONCEPTS

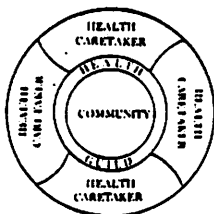
1. Seeing effective health practices is a powerful sign.
2. Doing a new activity over and over reinforces learning.
3. Involving citizens in participation replaces old images with new ones.
4. Activities and events of the community are occasions for education.
5. Guilds and stakes are structures for implementing education.
6. Visible signs effect profound change in a community.
7. Dealing with the signal health problem in a village creates a sign.

## ASSUMPTIONS

1. Most deprived communities are crisis-oriented rather than preventive.
2. Anyone can learn to be a Health Educator.
3. Every citizen is involved in the health of the community.
4. Resources for Health Education are available in larger communities.
5. A core of concerned citizens insures the health of the whole community.
6. Health Education is a continuous process.
7. Up to date health information depends on developing a communication network with outside resources.

# JOURNEY COMMUNITY HEALTH EDUCATION

BEGINNING	DEMONSTRATION	REFINEMENT	SELF SUFFICIENCY
<p>Consult Initiation stakes and Guilds</p> <p>Open House Auxiliary &amp; Pre-school</p> <p>Care of Water Safe Existing Parasite Control</p> <p>Community Garden Youth Project Kitchen Project</p> <p>*Health Emphasis HCT &amp; Visible Edifice</p> <p>Kitchen Opening Set-up &amp; Training and Feeding Program</p> <p>* Trek Possibility</p>	<p>HOP Facility Regular clinic hours</p> <p>Immunizations Stake Visits Regular clinics</p> <p>Sewage Stake toilets Parasite Control</p> <p>Maternal and Child Care Repeat curriculum Regular clinic</p> <p>Environmental Control Garbage System Pests</p> <p>Domestic Environment Food House Care</p> <p>Dental Hygiene Schools Adults</p>	<p>Basic Treatments Train HCT Regular Clinics</p> <p>Emergency Training Guild Community</p> <p>Paramedic Training Select &amp; arrange Celebrate</p> <p>Child Spacing Repeat curriculum Regular clinics</p>	<p>Food Preservation System Preparation Storage System</p> <p>Community Restaurant Self Support Profit</p> <p>Community Evaluation and planning quarterly and yearly</p>



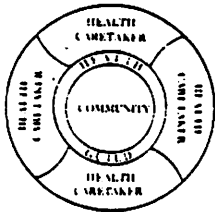
HEALTH EDUCATION  
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EVERYONE

## HEALTH CARETAKER TRAINING

Health Caretakers are volunteers, part-time citizens who are commissioned to work with all the families within their stakes. At the beginning they report weekly the births, deaths and illnesses to the health auxiliary and trained to do basic baby weighing and recording. Through an ongoing training program, the Health Caretakers assume progressively broader responsibility for health care in each stake in the community.

### CONCEPTS

1. Community stake design as a structure for care for every citizen.
2. Anyone can learn to be a Health Caretaker.
3. A core of concerned citizens can insure the health of the whole community.
4. Health and Vitality are intricately linked to every aspect of community development.
5. Continuous interchange of health information and services within and outside the community assures maximum quality health.
6. Prevention of disease is more important than cure.
7. It is easier to accept new ideas from a trusted neighbor than from an outsider.
8. A weekly meeting provides for continued training, accountability and reporting of statistics.
9. The most effective way to initiate an HCT Program is with an intensive Health Impact Month.
10. To care for the Stake, the HCT visits every home once a month.



HEALTH EDUCATION  
FOR  
EVERYONE

## BASIC CURRICULUM


The following chapter contains the curriculum and workshop procedures for the basic education of the Stake Health Caretakers. It should be noted that the teacher should ask the Health Caretakers to bring their Health Caretakers' Manuals (a copy of which is in the last part of this section) to each class. During each class the teacher will point out the pages of the manual which are being talked about in that class. There is space in the Health Caretakers' Manual pages for translation. Thus, at the end of the classes the Health Caretakers will have a practical guide of their own which they can use on a daily basis.

## HEALTH CARETAKER CLASSES

D A Y	WEEK 1			WEEK 2			WEEK 3		
	ROLE OF HEALTH CARETAKER			THE BODY AND ITS CARE			CARE IN THE COMMUNITY		
	TOPIC A	TOPIC B	NUTRITION	TOPIC A	TOPIC B	NUTRITION	TOPIC A	TOPIC B	NUTRITION
1	Introduction to Health Caretaker	Stake Map	Introduction to 5 Food Groups	Anatomy and Physiology	Visiting your neighbor by stakes	Birth to One Year	Pregnancy and Delivery	Adequate Diet Preparation	Mother and Child
2	Growth and Nutrition	Baby Weighing Workshop	Body Building and Energy	Reproduction and Child Spacing	First Aid Skin Care Workshop	Repeat	Economics and Diseases of Sanitation	Care of the Newborn Infant	Repeat
3	Microscopic World and Disease	Microscopic World Review Baby Weighing	Repeat	Basic Treatment Scabies Diarrhea	First Aid Immobilization of Fractures	One Year to Five Years	Interviewing and Community Outreach	Mother's Class	Working Man
4	Immunizations	Recording of Immunizations	Brainstorm	Basic Treatment Fever Respiratory diseases	Taking Temperatures	Repeat	Care Extension and Referral	Quarter Planning by Health Caretaker	Dental Care

# 5 FOOD GROUP SNACK



Daily lesson plans to be given after Topic B of each class

MAJOR IMAGE	CLASS TIMELINE	3 WEEK SNACK TOPIC																										
	<table border="1"><tr><td>SONG</td><td>ACCOUNT</td><td>TOPIC A</td><td>TOPIC B</td><td>SNACK</td><td>SONG</td></tr></table>	SONG	ACCOUNT	TOPIC A	TOPIC B	SNACK	SONG	<table border="1"><thead><tr><th>WK</th><th colspan="4">TOPICS</th></tr></thead><tbody><tr><td>1</td><td>1) INTRODUCTION TO 5 FOOD GROUPS</td><td>3) BODY BUILDING + ENERGY</td><td>5) REPEAT ?</td><td>7) BRAINSTORM</td></tr><tr><td>2</td><td>5) 0-1YR</td><td>6) REPEAT ?</td><td>7) 1-5 YRS</td><td>8) REPEAT ?</td></tr><tr><td>3</td><td>9) MOTHER + CHILD</td><td>10) REPEAT ?</td><td>11) WORKING MAN</td><td>12) DENTAL CARE</td></tr></tbody></table>	WK	TOPICS				1	1) INTRODUCTION TO 5 FOOD GROUPS	3) BODY BUILDING + ENERGY	5) REPEAT ?	7) BRAINSTORM	2	5) 0-1YR	6) REPEAT ?	7) 1-5 YRS	8) REPEAT ?	3	9) MOTHER + CHILD	10) REPEAT ?	11) WORKING MAN	12) DENTAL CARE
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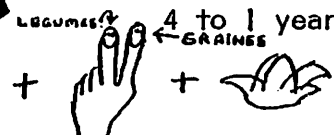

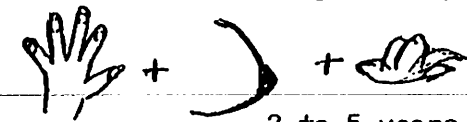
## OBJECTIVES

At every class during the Impact Month a short course is given for 10 to 15 minutes on the 5 food groups. This sort of rehearsal each day will allow the Health Caretaker to learn:

- 1) the 5 food groups
- 2) Their local foods in each category
- 3) Be able to make recipes
- 4) Understand amounts of food needs for each age

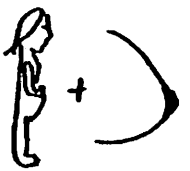


TOPICS	CONTENT	PREPARATION
1) Introduction to 5 Food Groups 	<ol style="list-style-type: none"> <li>1. Wash hands</li> <li>2. A snack is served</li> <li>3. Teach 5 food groups - use poster Vegetables = roots, stems, leaves and buds of plants Fruit = flesh around seeds Legumes = seeds grown in a pod Bread, Cereal, Seed = seeds exposed to air Animal products = what comes from animals</li> <li>4. You need one of these a day.</li> <li>5. Write on board type of food in snack &amp; group it's in. (corn=bread)</li> </ol>	<ol style="list-style-type: none"> <li>1. Make a list of what will be cooked for each snack.</li> <li>2. Get women in the class who will cook.</li> <li>3. This is a symbolic meal. A slice of fruit for each person.</li> <li>4. Buy food early so the women who cook can have it done before class.</li> <li>5. Keep food warm on a burner in class.</li> <li>6. You need dishes, cups, spoons.</li> <li>7. 2 basins &amp; soap for washing.</li> <li>8. Poster of 5 food groups</li> </ol>
2) Body Building & Energy GRAINS      LEGUMES 	<ol style="list-style-type: none"> <li>1. Wash hands</li> <li>2. A snack is served</li> <li>3. Ask class what are 5 food groups</li> <li>4. Teach grain &amp; legumes make protein (Proteins build your body)</li> <li>5. Large amounts give energy</li> <li>6. Have class say what is in meal and what group it's in.</li> </ol>	

# 5 FOOD GROUPS SNACK

TOPIC	CONTENT	PREPARATION										
3  REPEAT  ?	1. Wash hands 2. Serve the meal 3. ? Ask class: - What are the 5 food groups? - What is in the snack you are eating? - What food group does it fall under? - What two groups together are body building?	1. 5 food group poster 2. Poster of bread, cereals, seeds & legume group 3. Food preparation										
4 BRAINSTORM <table border="1"><tr><td>VEG</td><td>DAIRY</td><td>LEG</td><td>GRAIN</td><td>FRUIT</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	VEG	DAIRY	LEG	GRAIN	FRUIT						1. Wash hands 2. Serve the snack 3. Ask class what is in meal: 4. Brainstorm. Go around room and ask each person in class to say a food and tell which group it's under.	1. 5 food group poster 2. Poster with brainstorm 3. Magic marker to write on brainstorm
VEG	DAIRY	LEG	GRAIN	FRUIT								
5   0 to 1 year	1. Teach food for the Age of 0 to 4 months = breast milk only 4 mos. to 1 yr. = breast milk + legumes (grains) + green vegetable  2. Have class make out recipe for last age group. Use brainstorm list from class 4.	1. Poster of picture to the left 2. brainstorm list 3. Paper to put recipes on										
6  REPEAT  ?	1. Wash hands 2. Serve meal 3. Teach food needs to be soft. (boil & mash) 4. ? Ask class: What food is in the meal? Why are grains and legumes in the snack? 5. Teach class the amount on their plate is what a child needs 3 times/day. Handful of grain & legumes 3 times/day	1. Use Recipe from class 5 2. The amount a child needs 4 - 1 yr is served to each person										
7   1. to 5 years	1. Teach food for the age of 1 year to 5 years  2. Break into 3 workshops and make recipes for the day.	1. Poster of 5 food groups 2. Poster of foods 0-4 mos. 4-1 yr. - 1 1/2-2 yrs 2-5 yrs. 3. Brainstorm list 4. Paper & pencils										



# 5 FOOD GROUPS SNACK

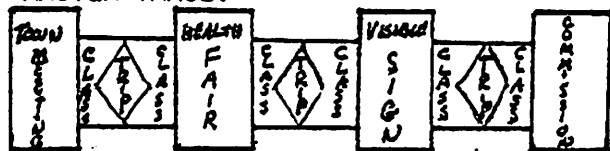
TOPIC	CONTENT	PREPARATION
8 Repeat ?	<ol style="list-style-type: none"> <li>1. Wash Hands</li> <li>2. Serve a meal</li> <li>3. ? ask class: What food is in the meal? What do you feed a child 1 yr - 2 yrs. 2 yrs - 5 yrs.</li> <li>4. Teach the class amounts on their plate (Ex. 1 cup of grain &amp; legumes 5yrs./day add other foods &amp; ↑ calories)</li> </ol>	<ol style="list-style-type: none"> <li>1. Take recipe from class # 7</li> <li>2. Meal prep.</li> <li>3. Calculate amounts needed for one person.</li> </ol>
9  Mother & Child	<ol style="list-style-type: none"> <li>1. Teach food for the pregnant &amp; lactating mother. 5 food groups + green vegetables</li> <li>2. Green vegetables - iron - makes blood strong - iron woman</li> <li>3. Make recipe for mother &amp; child</li> <li>4. Amounts you need is 2 times more than she feeds a baby (lesson?) add other group. If you can't eat amount add bread &amp; sugar to get more calories.</li> </ol>	<ol style="list-style-type: none"> <li>1. Poster of pregnant and breast feeding woman.</li> <li>2. 5 Food Groups Poster with pictures of vegetables</li> </ol>
10 Repeat ?	<ol style="list-style-type: none"> <li>1. Wash hands</li> <li>2. Serve Meal</li> <li>3. ? ask class: What food is in meal? What do pregnant and breast feeding mothers need to eat? How much do they need? Answer: Small amnts bread, cereal seed with legume, add sugar for calories.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make recipe with class and change it to a practical form.</li> <li>2. Meal prep.</li> <li>3. Posters from class # 9.</li> </ol>
11  Working Man	<ol style="list-style-type: none"> <li>1. Teach food for a working man working woman 5 Food Groups each day</li> <li>2. Man is same as pregnant and breast feeding woman.</li> <li>3. Woman a cup less of grains and legumes a day.</li> <li>4. Review each group and their needs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Poster of brainstorm.</li> <li>2. Poster of 5 Food Groups</li> <li>3. Poster of each age group.</li> </ol>
12  Dental Care	<ol style="list-style-type: none"> <li>1. You need your teeth to eat.</li> <li>2. How do you keep your teeth?</li> <li>3. Brushing is one way. How do you brush your teeth?</li> <li>4. THE TOOTHBRUSH. Pass out toothbrushes to class and show everyone how to use it</li> <li>5. Ritual. "Teeth for smile! Teeth for food! Teeth for life!"</li> </ol>	<ol style="list-style-type: none"> <li>1. Poster of tooth or smile.</li> <li>2. Inkind toothbrushes</li> </ol> <p>Ritual: Brush, brush, brush!</p>

WEEK 1

## INTRODUCTION TO HEALTH CARETAKERS

DAY 1

## MASTER IMAGE:



HEALTH EMPHASIS - 3 WEEK TIMELINE

## PLACE AND PARTICIPANTS:

Health Care Outpost  
Health Caretakers

## TIME:

Topic 1 - 30 Minutes

## KEY POINTS

1. Report
2. Review 3 week timeline
3. Health caretaker role
4. Team concept

## METHOD

Mass visitation information  
Number Visited  
Results of Visits

Describe the weekend events  
Town Meeting  
Health Fair  
Visible Sign  
Commissioning

Describe classes - one by one

Purpose of trips - Guild referral network

Role - one who cares for health of 20 - 40 neighbors  
teaching - good health practices  
Under 5 program  
Treat minor illnesses  
Referral

Responsibility

- 1) Class for 3 weeks
- 2) Weigh Babies
- 3) Visit homes once a month
- 4) Meet once a week

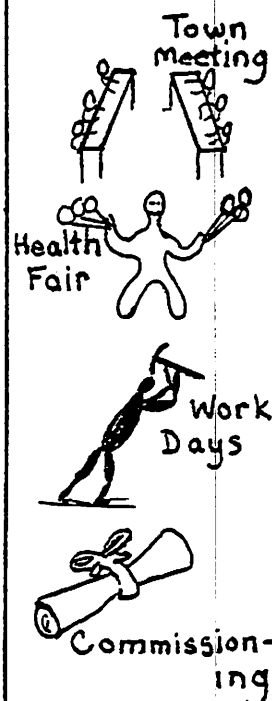
One person can't do it all  
we must be a team  
Preventive Medicine is very important

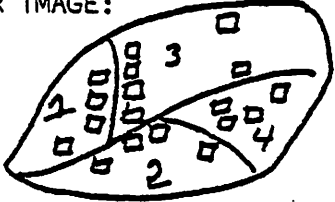
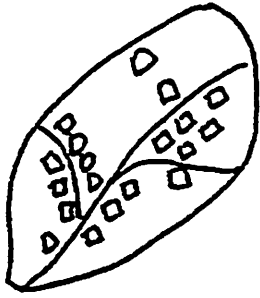
We need to work together  
like work days

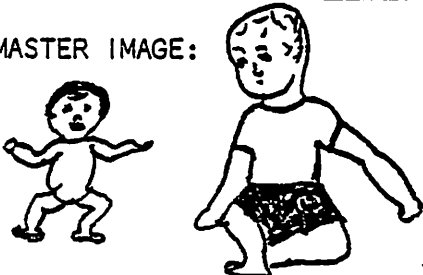
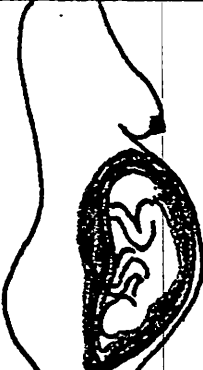

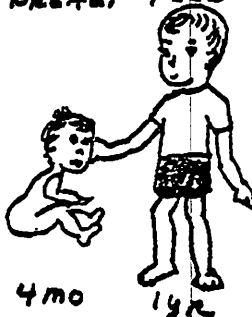
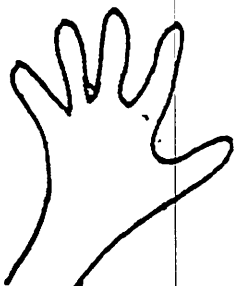
## AIDS






## 3 Week Plan

I	II	III



TOPIC B		
WEEK <u>1</u>	STAKE MAP	DAY <u>1</u>
MASTER IMAGE: Stake Map 	PLACE AND PARTICIPANTS: Health Caretakers	
	TIME: 20 Minutes	
KEY POINTS	METHOD	AIDS
<ol style="list-style-type: none"> <li>To care for the whole Community we must divide into Stakes - so one person can care for 20 - 40 families.</li> <li>Each person must know their Stake and every family in it. And your neighbor should know you as a Health Caretaker.</li> <li>To help us learn to read the map each person in the class come up and write your name in the map. Each person writes their name in the house representing their home.</li> <li>Explain that everyday there will be accountability by stake.</li> </ol> <p>Why?</p> <ul style="list-style-type: none"> <li>- so everyone will know who is in what stake.</li> <li>- so we are sure every stake is represented.</li> <li>- So in the future we are sure that all people in the village are being cared for.</li> </ul> <p>Let's Rehearse Now.</p>	<p>Make a Stake Map</p> <ol style="list-style-type: none"> <li>Use the Stake Grid and fill in the home - get citizen (a leader, elder) who knows most of the people and houses to help.</li> <li>Place it on a large poster.</li> <li>If you do not get all the houses, do not worry. You can have a future workshop where each HCT is given a drawing of their stake and must make sure that all houses are there and that names of the people are on each home.</li> <li>Pin the stake - number of each health caretaker as they put their name on the map.</li> </ol>	<ol style="list-style-type: none"> <li>A Stake Map   <p>Magic markers</p> </li> <li>Paper cut in square pins magic markers</li> </ol>

WEEK <u>1</u>		GROWTH AND NUTRITION		TOPIC A	
				DAY <u>2</u>	
MASTER IMAGE: 		PLACE AND PARTICIPANTS: Health Outpost - Health Caretakers		TIME: 30 minutes	
KEY POINTS		METHOD		AIDS	
<p>Major Points:</p> <ol style="list-style-type: none"> <li>1. Baby in Womb</li> <li>2. First 5 years</li> <li>3. 5 Food Groups</li> <li>4. Feeding baby/mother</li> <li>5. Malnutrition</li> </ol> <ol style="list-style-type: none"> <li>1. Baby in Womb               <ul style="list-style-type: none"> <li>- baby is fed by mother thru umbilical cord</li> <li>- baby is growing all the time</li> <li>- mother needs good diet so baby will grow</li> </ul> </li> <li>2. 1 - 5 years               <ul style="list-style-type: none"> <li>- diet most important</li> <li>- good diet - child grows</li> <li>- poor diet - child small</li> </ul> </li> <li>3. 5 Food Groups               <ul style="list-style-type: none"> <li>- animal - foods from animals, milk, eggs</li> <li>- grain - food that grows out of grasses with kernels</li> <li>- legumes - food from pods or shell</li> <li>- fruits - food with seeds</li> <li>- vegetables - leafy food &amp; roots and stalks</li> </ul> </li> <li>4. -Breast feed 12 hours after birth               <ul style="list-style-type: none"> <li>-Begin 5 foods when baby 5 months but continue breast feeding til 2 years</li> <li>- gradually increase food &amp; decrease nursing</li> </ul> </li> <li>5. Malnutrition - from :               <ul style="list-style-type: none"> <li>no food</li> <li>no 5 foods</li> </ul> </li> </ol> <p>WEIGH BABY EVERY MONTH</p>		<p>start food cooking 2 hours prior to class</p> <p>write major points on master wall chart, put on wall day 1</p> <p>Point foods out on chart and name examples</p>		 <p>Baby in Womb</p>  <p>MOTHER FEED</p>  <p>4 mo 1 yr</p>  <p>5 FOOD GROUPS</p>	

WEEK <u>1</u>		BABY WEIGHING WORKSHOP		Topic B																																																																									
				DAY <u>2</u>																																																																									
MASTER IMAGE: 		PLACE AND PARTICIPANTS:  Stake homes																																																																											
		TIME:  45 minutes																																																																											
KEY POINTS		METHOD		AIDS																																																																									
Gaining weight is a sign of good nutrition		To check the growth of the babies in the village, we will weigh them every month		 Imo																																																																									
Weigh Babies Once a Month		we will mark the weight on a picture		 lyr																																																																									
Parts of the Weighing Machine		take scales and record keeping materials to assigned homes in stakes																																																																											
Starting a Weight Chart		Show the Scale the numbers tell how much the baby weighs		 weigh baby																																																																									
		Each baby's name is written down Weigh the baby the same time of each month Put a mark by the weight for the month		Remember - if the line is upward the baby is gaining  if the line is down the baby needs help																																																																									
				<table border="1"> <thead> <tr> <th colspan="2">NAME</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>W</td> <td>E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>E</td> <td>I</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I</td> <td>G</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>G</td> <td>H</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>H</td> <td>T</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> CHART		NAME		1	2	3	4	5	6	7	8	9	10	W	E											E	I											I	G											G	H											H	T										
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MASTER IMAGE:



PLACE AND PARTICIPANTS:

Health Care Outpost

TIME:

30 minutes

## KEY POINTS

## METHOD

## AIDS

There is a small world

there are animals and people of all sizes

some you can't see because they are so tiny  
these are called Germs

Germs can be good - curds of milk  
Germs can be bad - diarrhea

Diseases are started by Tiny Germs

germs like to live in people

they grow by making more germs

As the germs live they make poisons which make you sick

How Germs Enter your Body

- germs get inside through your nose when you breathe, and start coughing colds, TB

- through your mouth  
start diarrhea

flies - feces - food - mouth -  
diarrhea

mosquitos - malaria

How To Prevent Germs from entering your Body

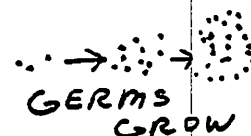
- through animal  
bites - rabies  
stool - worms

- skin - scabies

Wash hands, cover food  
immunization, medicine



WE CAN NOT SEE



GERMS GROW



cough



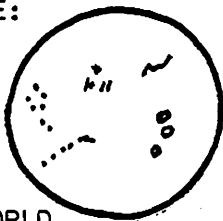
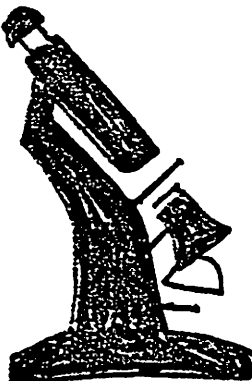
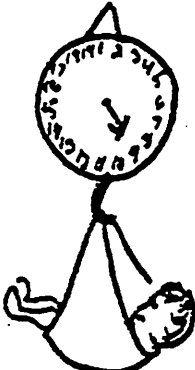
FLIES



WASTE



CLEAN HANDS

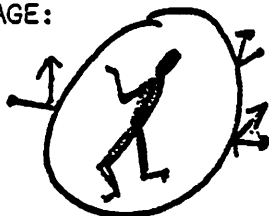
WEEK <u>1</u>		MICROSCOPE/REVIEW BABY WEIGHING		Topic <u>B</u>
DAY <u>3</u>				
MASTER IMAGE:  MICROSCOPIC WORLD		PLACE AND PARTICIPANTS: Outpost		
		TIME: 45 minutes		
KEY POINTS		METHOD		AIDS
<p>There is a world we can't see</p> <p>Demonstrate through use of Microscope</p>		<p>the germs we talked about this morning except for worms are too small to see with our eyes</p> <p>we will see what they look like through this special tool</p> <ul style="list-style-type: none"> <li>- show hair</li> <li>- show drop of standing water</li> <li>- show parasite slide</li> </ul>		
<p>Review reason for baby weighing</p>		<p>Explain again:</p> <p>to check for adequate nutrition - weigh the baby</p> <p>if there is weight gain there is good nutrition</p> <p>if there is no gain or if there is a loss, the baby is undernourished or ill</p>		
<p>Review growth charting</p>		<p>We should weigh the baby every 30 days and mark the weight on the chart</p>		

WEEK 1

IMMUNIZATIONS

DAY 4

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Health Outpost

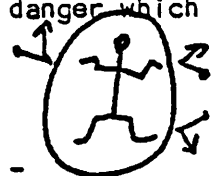
TIME:

three hours

KEY POINTS

- Image of protection

Vaccine protects against danger which you can't see



- Reflect on illustrated diseases:

Have you seen evidence of these diseases?

Have you had these diseases?

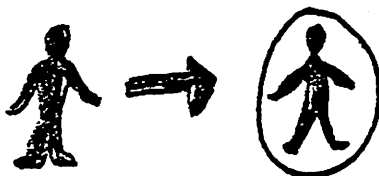
Have you had shots? for what?

- Life Time Protection  
FREE SAFE

METHOD

- illustrate protection story (see end of section)

- Invisible killers



protected

- 1 shot
- booster shots at prescribed times
- everyone has had smallpox vaccination
- use body postures to illustrate diseases

polio - crippled arm or leg  
diphtheria - cough, fever  
whooping cough - sore throat  
tetanus - stiff body  
T: B. - cough, sputum, death

AIDS

PROTECTED



UNPROTECTED



SEE STORY  
ON PROTECTION





WEEK 1

RECORDING OF IMMUNIZATIONS

DAY 4

MASTER IMAGE:

NAME				
DPT	✓	✓	✓	
BCG	✓	✓	✓	
Typhoid	✓	✓	✓	

RECORDS TELL A STORY

PLACE AND PARTICIPANTS:

Health Caretaker's Outpost

TIME:

45 minutes

KEY POINTS

Records tell us a story.

There is a Schedule to follow for everyone.

The Records are very important.

METHOD

People who are immunized are taking care of themselves.

Babies need several shots in the first year to be protected.

Adults need only a few shots.

Put on Wall Chart:

Babies - 2 months - Polio  
DPT

4 months Polio  
DPT

6 months Polio  
DPT

1 year Polio  
DPT

5 year Polio  
DPT

Adults Each 10 yrs. Tetanus  
After Pregnancy  
Tetanus











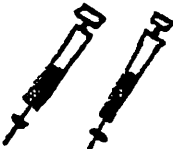
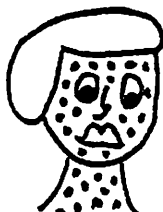
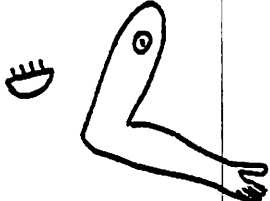
Show record with Immunization portion

1. Give copy to each Health Caretaker.
2. Give examples and fill in on chart on wall.
3. Have HCT fill in card at some time.
4. Check what has been done.

AIDS

See sheet on Immunization Schedule.

NAME				
DPT	✓	✓	✓	
BCG	✓			
Sarna Pox	✓			
Typhoid	✓			

IMMUNIZATION SCHEDULE			
		WEEK 1	DAY 4
NAME	SICKNESS	TIME	METHOD
BCG		0 - 4 Months	
DIPHTHERIA DPT - PERTUSSIS TETANUS	 Sore Throat  Fever  Cough 	102 2 Months 4 Months 6 Months 1½ Years 5 Years	 
POLIO			
TYPHOID	 102	1 Year 2 Years 3 Years, etc.	
SMALL POX		1 Year	

WK 1  
DAY 4  
TOPICA

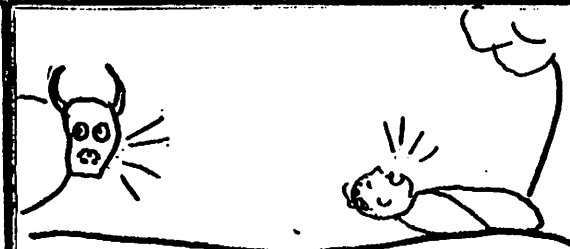
PROTECT YOUR CHILD TODAY

MAKE INTO  
FLASH CARDS

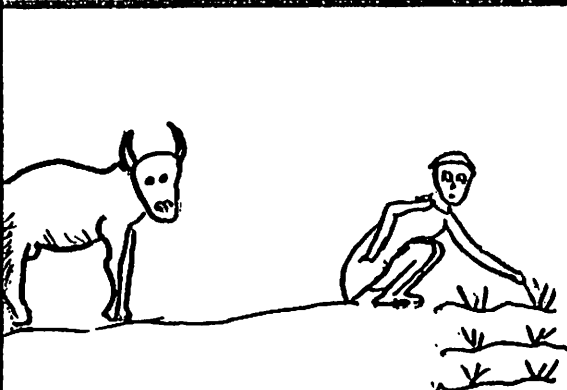
1) Rhoke Mini Bai placed her baby on the ground by a tree while she went to work in the fields.



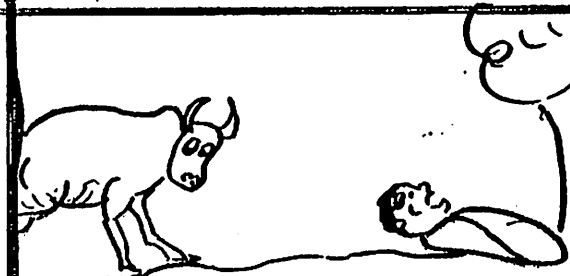
3) She then heard her baby cry and she heard the snort of the bull.



2) While working she hears a noise (snort like bull) she turned to find a bull up the road. She went back to work in the field.



4) She turned to find the bull running toward the baby.



PROTECT YOUR CHILD TODAY

MAKE INTO  
FLASH CARDS

5) Quickly Rhoke Mini  
Bai RAN!



7 ONLY RHOKE MINI BAI COULD  
PROTECT HER BABY, FOR HER  
BABY CANNOT RUN, CANNOT  
FIGHT AND CAN ONLY CRY



6) And she grabbed her  
child in time.



8 THE GERM BUG THAT CAUSES  
POLIO, DIPHTHERIA, SMALL POX  
AND OTHER SERIOUS DISEASES  
ARE MORE DANGEROUS THAN THE  
BULL, BECAUSE OUR EYE CAN'T  
SEE THEM, AND YOUR BABY  
WILL NOT CRY.



PROTECT YOUR CHILD TODAY

MAKE INTO  
FLASH CARDS

9

SUDDENLY YOUR BABY IS  
SICK AND NO ONE CAN HELP



11

THEY ARE SAFE

12


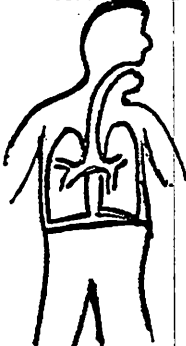
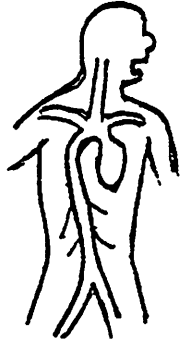


THEY PROTECT YOUR CHILD

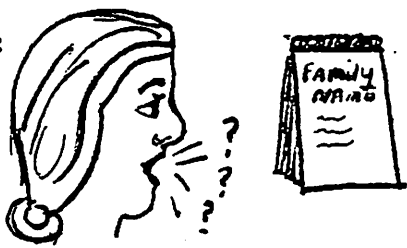


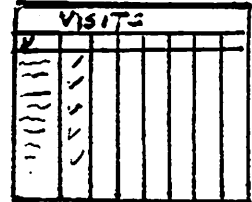
10 ONLY YOU CAN PROTECT  
YOUR CHILD. ALL YOU  
HAVE TO DO IS TAKE  
YOUR CHILD TO THE  
CLINIC TO GET NEEDED  
IMMUNIZATIONS



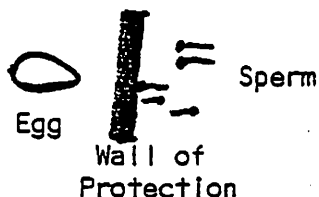
13

THEY LAST FOR LIFE

ANATOMY, PHYSIOLOGY AND DISEASE		TOPIC A
WEEK <u>2</u>	(our bodies well & sick)	DAY <u>1</u>
MASTER IMAGE: 	PLACE AND PARTICIPANTS: Health Outpost	
	TIME: 3 Hours	
KEY POINTS	METHOD	AIDS
<p>Our body is AMAZING besides muscle, skin, bone, there are 4 major systems</p> <ol style="list-style-type: none"> <li>1. Food is broken down in the <u>Digestive System</u> into smaller and smaller pieces until each part of body gets what it needs from blood</li> <li>2. Blood is carried to the body by <u>Circulatory System</u> pumped by the heart</li> <li>3. Air goes to our body from the lungs through the blood-- <u>Respiratory System</u></li> <li>4. Learning and controlling our body is through the <u>Nervous System</u></li> </ol> <p>Our body is on the lookout and acts out symptoms of illness for each system</p> <p>Digestive- vomiting, diarrhea, abdominal pain  Respiratory- sore throat, cold, cough, difficult breathing  Circulatory- heart pain, shock, bleeding, anemia  Nervous - back injury, brain damage</p>	<ol style="list-style-type: none"> <li>1. Fill in Digestive System on System Poster with magic marker  point to own body</li> <li>2. Fill in Circulatory Chart might have picture of village pump listen to hearts (stethoscope) point to own heart</li> <li>3. Fill in Respiratory System on color chart blow up balloon point to own lungs</li> <li>4. Fill in Nervous System Chart Use pin to touch skin to show response</li> </ol>	   

WEEK <u>2</u>		TOPIC A VISITING YOUR NEIGHBORS BY STAKES		DAY <u>1</u>
MASTER IMAGE: 		PLACE AND PARTICIPANTS: Health Caretakers		
		TIME: 30 minutes		
KEY POINTS	METHOD	AIDS		
1. Class review of past classes  2. The role of a good interviewer  3. Data to get:  4. Visiting Plan  5. Make out a timeline.	1. Use class timeline from first class. Point to each class and ask the question: What do you remember about this class? 2. A good interviewer: LOOK: to see if your neighbors and the surroundings are healthy LISTEN: to your neighbor talk for they can tell you about their problems. 3. Ask class if they remember what questions to ask. write down what your neighbor says in a notebook. Write down who you visit. Ask class who has visited their neighbors.  4. Use stake map. Give each member of class a map of their stake. Take ten minutes and let the class fill in the names of families near their house. Have them take it home as homework.  5. Who will you see this week?	1. MAKE POSTER OF MASTER IMAGE      3. Make poster of master image  4. Use stake map Make out 8" x 11" map of each stake to be handed out to each class member.  5. 		

## MASTER IMAGE:



## PLACE AND PARTICIPANTS:

Health Caretaker

## TIME:

30 Minutes

## KEY POINTS

1. How pregnancy occurs.
- A. Female Monthly Cycle

## METHOD

1. Pregnancy
  - A) See Union of the sperm & egg diagram
  - B) Monthly cycle:
    - 1) One egg each month
    - 2) If no pregnancy the lining comes out as bleed for 4 to 5 days
    - 3) Fertile period between bleeding times.



red      brown      white  
blood   sex      fertile

- C) Pregnancy happens during the fertile time when the egg and sperm meet inside the womb.

2. Responsible Parenthood (Child spacing)

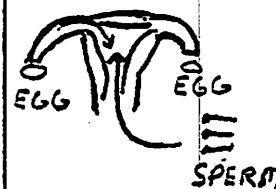
2. Child spacing
  - A) will give each baby a better chance to live.
  - B) can be breast fed 2 years.
  - C) A year without nursing or pregnancy gives the mother a chance to recover her strength.
  - D) Three years between babies is best.

3. To Prevent Pregnancy

3. Prevent pregnancy
  - A) Avoid intercourse during fertile time.
  - B) There are also pills, loops & condoms available to block the sperm from meeting the egg.

## AIDS

## Make Poster

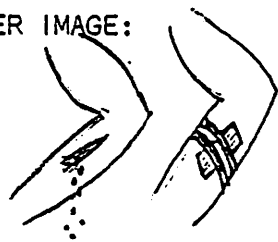
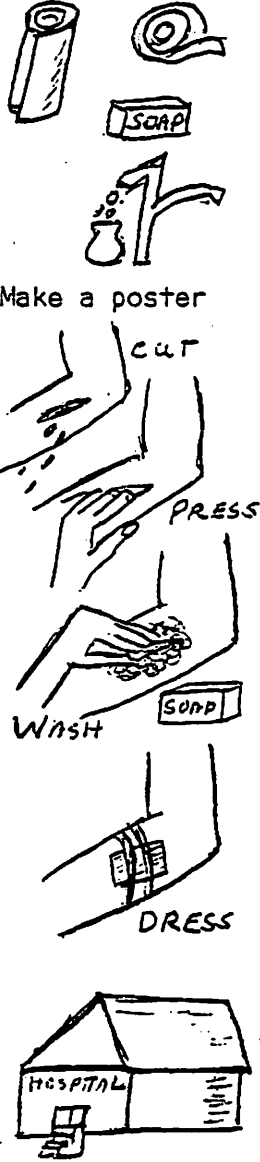


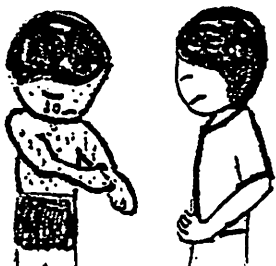
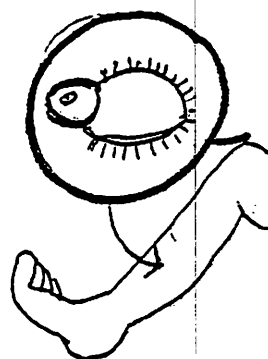
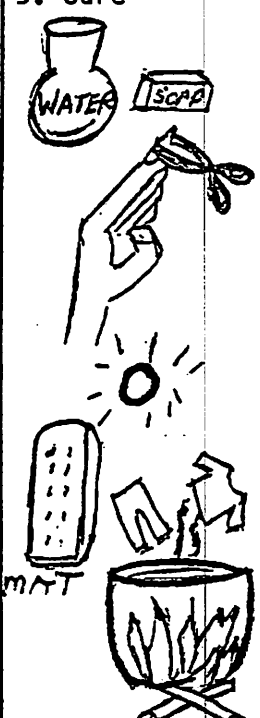
Get 28 Rock  
Paint 5 red  
Paint 6 white  
Line them up in the right order as shown under method.



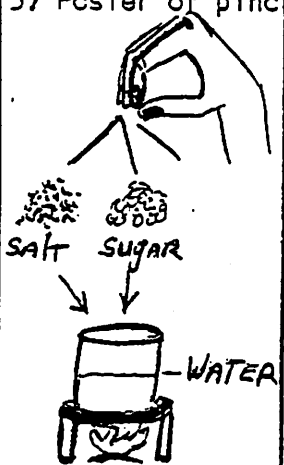
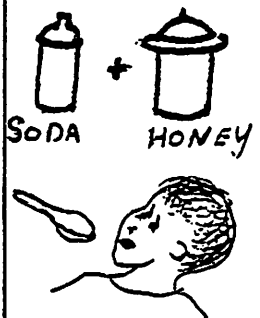
Make poster on wall of protection.





WEEK <u>2</u>		FIRST AID SKIN CARE WORKSHOP		TOPIC B	
				DAY <u>2</u>	
MASTER IMAGE: 		PLACE AND PARTICIPANTS: Health Caretakers		TIME: 20 Minutes	
KEY POINTS		METHOD		AIDS	
What to do with a wound		<p><u>If there is bleeding:</u></p> <ol style="list-style-type: none"><li>1) Press - Apply pressure to stop it.</li><li>2) Wash - Clean wound with soap and water.</li><li>3) Dress - Put on a dry bandage and cover the entire wound.</li></ol> <p><u>To close wound:</u></p> <ol style="list-style-type: none"><li>1) Small wounds - bandaids</li><li>2) Large wounds - Require stitches - take to hospital.</li></ol> <p><u>Draining wounds:</u></p> <ol style="list-style-type: none"><li>1) clean with soap and water</li><li>2) cover with dry dressing</li><li>3) If fever - send to hospital</li></ol> <p><u>Burns:</u></p> <ol style="list-style-type: none"><li>1) Do not wash</li><li>2) Small - Cover with a dry dressing.</li><li>3) Large - cover with dry dressing and go to hospital. Also give water to drink.</li></ol> <p><u>Remember - Review</u></p>		<p>Make a poster</p> 	
		<p><u>Review</u></p> <p>A) Germs on the skin can get through the skin through cuts and burns.</p> <p>B) Washing with soap and water kills germs.</p> <p>C) Covering with a dressing keeps germs out. (Should be kept clean and dry!)</p>			

WEEK <u>2</u>		BASIC TREATMENT: SCABIES		TOPIC A
				DAY <u>3</u>
MASTER IMAGE: 		PLACE AND PARTICIPANTS: Health Outpost		
NO USE SCRATCHING  STOP SCABIES		TIME: 30 mins.		
KEY POINTS		METHOD		AIDS
<p>1. Scabies happen because of very little insects which live in clothes, sheets, and mattresses bury themselves into our skin. This is scabies.</p> <p>CAUSE:</p> <ul style="list-style-type: none"> <li>-Not using soap when bathing or washing clothes</li> <li>-Not washing body and clothes often</li> </ul> <p>CURE:</p> <ul style="list-style-type: none"> <li>-Use a special medicine on the body</li> <li>-Boil all clothes and sheets for all of family</li> <li>-Put mattresses in sun each day for several days</li> <li>-Cut fingernails short to avoid infection while scratching</li> </ul> <p>*If no special medicine is available then wash with soap and the warmest water you can get each day.</p>		<p>1. Begin by asking a few questions. (If possible have a child who has skin sores stand up front with the teacher):</p> <ul style="list-style-type: none"> <li>- How many have ever had skin sores like these?</li> <li>-(How many have them now?)</li> <li>- What is most irritating about having them?</li> <li>- Has anyone tried to get rid of them? How? and illustrate</li> </ul> <p>2. Describe and illustrate what a skin sore is and how it happens.</p> <p>3. Create a chart to hold diagrams.</p> <p>4. Illustrate on board the causes.</p> <p>5. Illustrate on board the cure.</p> <p>6. Demonstrate washing body.</p>		<p>1. Make poster of master image.</p> <p>2. Scabies - bug</p>  <p>Live under the skin.</p> <p>3. Cure</p> 

WEEK <u>2</u>	(CONTINUE) BASIC TREATMENT: DIARRHEA	TOPIC A DAY <u>3</u>
MASTER IMAGE: <div style="display: flex; align-items: center; margin-top: 10px;">  <div> <p>We are</p> <p>7 parts</p> <p>water</p> </div> </div>	<div style="border-bottom: 1px solid black; padding-bottom: 5px;">           PLACE AND PARTICIPANTS:            Health Outpost         </div> <div style="padding-top: 10px;">           TIME:            30 Minutes         </div>	
KEY POINTS	METHOD	AIDS
<p>1. <u>Diarrhea</u> is defined as loose, runny and watery bowels excreted several times in one day.</p> <p>A) Serious because it causes dehydration (the body to lose its water) and can cause death in babies if not treated properly.</p> <p>(Body is 7 parts water - 3 parts other)</p> <p>B) Check for signs of dehydration:</p> <ol style="list-style-type: none"> <li>1) dry mouth</li> <li>2) pinch skin - if it stays wrinkled after letting go.</li> </ol> <p>C) Treatment</p> <ol style="list-style-type: none"> <li>1) Increase fluids             <ol style="list-style-type: none"> <li>a) sugar water</li> <li>b) boiled juices</li> </ol> </li> <li>2) No solids - No milk for adults</li> <li>3) Baby on breast milk</li> <li>4) Water stools more than 6/day with vomiting may be <u>cholera</u> or parasites (worms).</li> </ol>	<ol style="list-style-type: none"> <li>1. Define diarrhea</li> <li>2. Discuss the seriousness of the illness</li> <li>3. Use diagram on board to illustrate body is 70% water.</li> <li>4. List signs of dehydration.</li> <li>5. Discuss treatment.</li> </ol>	<ol style="list-style-type: none"> <li>1) Make poster of master image.</li> <li>2) Make poster: Babies lose water fast with diarrhea.</li> </ol> <div style="text-align: center;">  </div> <ol style="list-style-type: none"> <li>3) Poster of pinch</li> </ol> <div style="text-align: center;">  </div> <p style="text-align: center;">If possible add.</p> <div style="text-align: center;">  </div>

WEEK 2

## FIRST AID - IMMOBILIZATION OF FRACTURES

DAY 3

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Health Outpost

TIME:

45 Minutes - 1 hour

## KEY POINTS

## METHOD

## AIDS

1. How do you know if a leg is broken

- Questions:

1) What do you do when you have a broken arm or leg?

2) How do you know if a leg or arm or some other bone is broken?

A) Something happened to cause a bone to break.

B) Severe pain

C) Bone broken through skin

D) Arm or leg is misshapen

1) Use pictures from Health-care taker's sheet and make a poster of how to splint:

upper arm

lower arm

upper leg

lower leg

also splint

2. What do you do?

3) What do you do?

A) Immobilize fractured bone with splint and bandages.

B) Transport immediately to nearest hospital for casting.

2) Need 2 people for patients.

3) Other items needed for workshop:

- wood for splint

- Clean bandages

- Sheet ties

- Soap and pan of water

- Demonstration of Splint:

A) First show washing carefully with water & soap.

B) Then wrap with clean bandage if necessary.

C) Follow diagrams on follow page.

3. When to Splint.

- Where to splint:

A) Forearm Fracture

Splint hand to elbow - provide arm sling.

B) Upper Arm - Splint elbow to shoulder-provide sling & bind arm to chest.

C) Lower leg - Splint ankle to knee - to hospital

D) Upper leg - Splint knee to hip - to hospital

E) Pelvis or Spinal Column - Carry on stretcher with little movement as possible - to hospital.

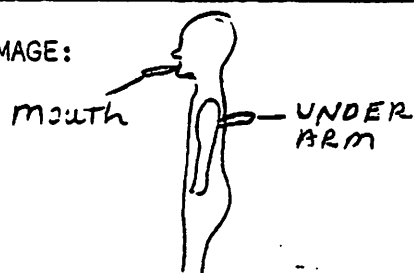


WEEK 2

## Taking Temperature Workshop

DAY 4

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Health Caretakers at Health Outpost

TIME:

30 Minutes

## KEY POINTS

Body temperature tells about health

Places to measure temperature.

Care of Thermometer

## METHOD

1. Temperature: over 99 degrees means fever - the higher the temperature the more severe the illness.

2. Take temperature:  
 A) Under tongue - adults  
 B) In Arm pit - baby or child  
 \*Be sure arm comes down to cover thermometer.  
 C) 5 minutes are needed to measure right temperature.




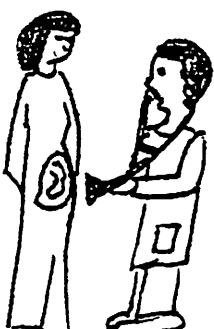

3. The thermometer must be:  
 A) cleaned by rubbing with tepid water & soap.  
 B) rinse well  
 C) soak in antiseptic

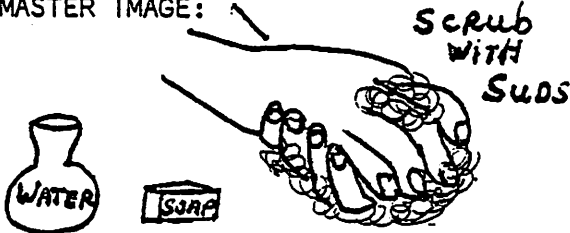



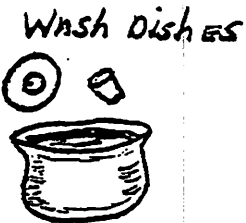
NOTE : DON'T PUT A THERMOMETER IN MOUTH AFTER USING IN RECTUM .

## AIDS

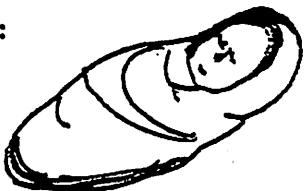



1) Use poster from fever lecture.

2) Draw picture of master image.

WEEK <u>3</u>		PREGNANCY AND DELIVERY		Topic A
				DAY <u>1</u>
MASTER IMAGE: 		PLACE AND PARTICIPANTS:  Healthcare taker		
		TIME:  30 Minutes		
KEY POINTS		METHOD		AIDS
1. First 6 months		1. A) Go to hospital as soon as you know for check-up & instructions. B) Need to eat 5 food groups. C) Need to eat green veg. D) Sign & Symptoms of Preg. 1) nausea 2) back pain 3) breast fuller 4) no period E) Fetal movement F) Safty don't fall & don't carry heavy loads.		 5 Food Groups T  GREEN VEG
2. Last 3 months		2. A) Danger signs 1) vaginal bleeding 2) vomiting frequently 3) blurred vision 4) dizzy 5) sharp pains 6) swollen feet & ankles		 SEE DOCTOR
3. Labor and delivery		3. A) Contractions Mother should relax & breathe slow and deep B) Cervix gets big-baby is ready to come C) Midwife wash hands with soap & water D) Have with you 1) clean cloth 2) clean cord ties 3) sterile razor or knife E) After delivered-hold baby upside down-clean mouth-rub back F) Placenta-message mother's stomach downward. G) Cord 1) don't pull on - 2) tie on two ends 3) cut between ties-razor		
4. Care of Baby		4. Clean eyes with clean water		

<p>MASTER IMAGE:</p> 		<p>PLACE AND PARTICIPANTS:</p> <p>Healthpost</p>
		<p>TIME:</p> <p>45 Minutes</p>
KEY POINTS	METHOD	AIDS
<p>Good Sanitation prevents illness and disease and the spread of it. Especially: Diarrhea Cholera Sores</p> <p>1. Food -</p> <p>2. Water -</p> <p>3. Latrines -</p> <p>4. Hands -</p> <p>5. Dishes -</p>	<p>- Consistent good habits of cleanliness means vitality for you.</p> <p>1) Food</p> <p>A) Wash all vegetables &amp; fruits in clean water or peel.</p> <p>B) Keep covered-away from flies &amp; other insects.</p> <p>C) Keep stove off ground.</p> <p>2) Water</p> <p>A) Well water is placed in a clean covered container to let settle &amp; then boil 20 minutes before using.</p> <p>3) Latrines</p> <p>A) Keep human waste from water &amp; flies by digging a deep hole 20 feet away from water &amp; house.</p> <p>B) When near full fill with dirt &amp; plant fruit tree.</p> <p>4) Hands</p> <p>A) Wash with soap after elimination.</p> <p>B) Wash before handling or eating food with soap and clean water.</p> <p>5) Dishes</p> <p>A) Clean dishes by using soap &amp; clean water.</p> <p>B) Then lay out in sun to dry.</p> <p>C) Use sand to remove grease (best away from people)</p>	<p>MAKE POSTER OF MASTER IMAGE</p> <p>MAKE POSTER</p>  <p>WASH FOODS</p>  <p>Boil WATER</p>  <p>LID ON LID OFF</p> <p>X</p> <p>LATRINES</p> <p>WASH HANDS</p> <p>SEE MASTER IMAGE</p> <p>Wash Dishes</p> 



WEEK <u>3</u>		WORKSHOP - CARE OF THE NEW BORN INFANT	Topic <u>B</u>
			DAY <u>2</u>
MASTER IMAGE: 		PLACE AND PARTICIPANTS: Health Caretaker	
		TIME: 30-Minutes	
KEY POINTS	METHOD	AIDS	
<p>Proper care of the new born infant in the first few days is crucial.</p> <p>Four aspects to care for are:</p> <ol style="list-style-type: none"> <li>1. Obvious conditions that need immediate attention</li> <li>2. Bathing the Baby</li> <li>3. Keeping baby warm and letting him sleep</li> <li>4. Feeding Baby as soon as awake and crying</li> </ol> <p>Demonstration</p> <p>Materials needed:</p>	<p>- Share an experience of when a baby has died because of lack of a proper care and explain that this does not have to happen.</p> <ol style="list-style-type: none"> <li>1) Obvious conditions that need emergency care:               <ol style="list-style-type: none"> <li>A) Low weight baby</li> <li>B) Irregular &amp; difficult breathing</li> <li>C) Too much fluid in mouth</li> <li>D) Jaundice (yellow colored skin and eyes)</li> </ol> </li> <li>2) Demonstrate bathing baby.</li> <li>3) Wrap baby in clean-soft wrapes for warmth &amp; keep flies &amp; insects away so he can sleep.</li> <li>4) Feeding baby               <ol style="list-style-type: none"> <li>A) Breast feed when mother's rested &amp; baby awake.</li> <li>B) Everything into mouth must be clean.</li> <li>C) Breast milk is best.</li> </ol> </li> </ol> <p>Demonstrate</p> <ol style="list-style-type: none"> <li>1) Bathing</li> <li>2) examination</li> <li>3) Wrapping</li> <li>4) Prep food</li> </ol> <p><u>CLEAN</u> 1)boiled water 2)cloth 3)towel 4)soft wrapper-warmth 5)wrapper for bottom 6)insect proof (net over) bed for baby-(basket, box, etc) 7)pot to boil water in &amp; bottle &amp; nipple 8) heat source</p>	<p><b>MAKE POSTER OF MASTER IMAGE</b></p>  <p><b>NOT ENOUGH FOOD</b></p>  <p><b>BREAST FEED</b></p>  <p><b>WATER</b></p> <p><b>CLEAN YOUR Baby</b></p>	

## MASTER IMAGE:

We visit  
the homes  
of our  
neighbors



## PLACE AND PARTICIPANTS:

Health Caretakers

## TIME:

25 Minutes

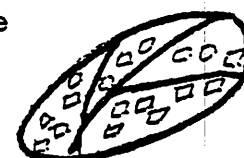
## KEY POINTS

1. Visit every home in each stake once a month- one family a day.
2. Your story as a Health Caretaker and questions to ask.
3. Developing Trust
4. Teaching your neighbors
5. Keep a record of those who you visit
6. Workshop

## METHOD

1. Point to stake map.
  - A) Being a Health Caretaker demonstrates to the village care in each stake.
  - B) Doctors are excited about the work you are doing for they cannot visit every home. You can keep people from getting sick and he only has time to cure.
2. Role Play:
  - A) Ask student to come up in front of class. You, are health caretaker - they are neighbors. Say hello I am your Health Caretaker my role in the community is--
  - B) Show picture of HCT & explain role.
  - C) Ask questions:
    - How many people are pregnant, births, deaths?
    - Is anyone sick in family?
    - Any skin disease?
3. Conversation - develop trust
  - How are your crops, etc.?
4. Pull out teaching sheet on 5 food groups & teach neighbor.
5. Keep a record of those you visit so not to forget someone - need to care for all.
6. Break group into 2 & have one play HCT & one the neighbor and do a visit you have done.

## AIDS



POSTER OF  
STAKE MAP



TEACHING AID  
NEED ONE FOR  
EACH STUDENT

RECORDS			
NAME	✓	✗	✗
---	✓		
---	✓		
---	✓		
---			
---	✓		
---	✓		
---			
---			

SEE ADDITIONAL  
SHEET

WEEK 3

MOTHER'S CLASS

Topic B

DAY 3

MASTER IMAGE:

BREAST  
MILK  
IS THE  
BEST

PLACE AND PARTICIPANTS:

Health caretakers

TIME:

20 Minutes

## KEY POINTS

## METHOD

## AIDS

1. Diet for 2 years

1. Ask class what they know?  
The baby will get enough nutrition from breast milk for the 1st 6 months

A) Protein - body building food.

B) Calories - energy foods

C) Vitamines & Minerals - protection foods

1.

2. Breast milk

2. Ask class what they know?  
To produce good quality breast milk:

A) Mother should eat more protein and protection foods while nursing.

2.

3. Add supplement to breast milk

3. Ask class what they know  
At 4 months the baby's food requirements can not be met by breast milk along.

A) Add boiled cereal as a porridge once a day.

B) 2-3 weeks later - add protein - dry milk powder and egg - water from cooked beans or peas.

C) 1 year and older - ground nuts - powdered fresh fish - fruit - dark green leaves.

3. 4mo - 1yr

4. How to cook and feed

4. Babies food must be made soft for baby has no teeth and baby's stomach is not old enough to be able to break down food.

A) Boil

B) mash

C) stir well

D) small feedings

1yr - 2yr

5 Food + BREAST GROUP

2yr - 5yr

5 Food Groups

4.



Boil

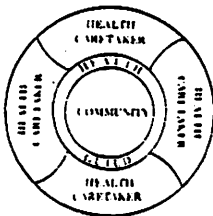
WEEK 3

CARE EXTENSION AND REFERRAL

DAY 4

<p>MASTER IMAGE:</p>	<p>PLACE AND PARTICIPANTS:</p> <p>Health Post</p>	
	<p>TIME:</p> <p>45 Minutes</p>	
KEY POINTS	METHOD	AIDS
<p>1. Role of Health Caretaker</p> <p>2. Emphasis of HCT curriculum Prevention</p> <p>3. Referral Network</p> <p>4. Self Support</p>	<p>1. Role of HCT at Stake level:</p> <ul style="list-style-type: none"> <li>A) Preventive care-80% of ill</li> <li>B) You &amp; family a sign of good health</li> <li>C) You are information source</li> <li>D) HCT's form a team with all stakes cared for.</li> </ul> <p>2. Preventive care emphasis</p> <ul style="list-style-type: none"> <li>A) Pregnant mother care</li> <li>B) New born care</li> <li>C) Mother at delivery</li> <li>D) Under 5 nutrition</li> <li>E) Baby weighing to detect malnutrition - emphasis baby feeding for nutrition</li> <li>F) Immunization Program</li> <li>G) Treatment of simple acute illnesses</li> <li>H) Home visits once/month</li> <li>I) Can treat colds, fever, skin sores, small cuts, burns &amp; diarrhea.</li> </ul> <p>3. Referral network for more complex disease. You know where to send: clinic visiting M.D. near Hospital</p> <ul style="list-style-type: none"> <li>A) You know how to use the Hospital.</li> <li>B) You know when the visiting nurse and doctor come.</li> <li>C) You can explain to your people what to expect.</li> </ul> <p>4. Self support - To be sure that the Health Care System will continue there must be a small fee for services.</p>	<p>1. MAKE POSTER OF MASTER IMAGE</p>

WEEK <u>3</u> QUARTERLY PLANNING BY HEALTH CARETAKERS		Topic <u>B</u> DAY <u>4</u>						
MASTER IMAGE: Quarterly Calendar <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 33%;"><b>I</b></td> <td style="width: 33%;"><b>II</b></td> <td style="width: 33%;"><b>III</b></td> </tr> <tr> <td>~~~~~</td> <td>~~~~~</td> <td>~~~~~</td> </tr> </table>		<b>I</b>	<b>II</b>	<b>III</b>	~~~~~	~~~~~	~~~~~	PLACE AND PARTICIPANTS: Health Caretakers  TIME: 30 Minutes
<b>I</b>	<b>II</b>	<b>III</b>						
~~~~~	~~~~~	~~~~~						
KEY POINTS	METHOD	AIDS						
<ol style="list-style-type: none"> <li>1. Introduce Quarterly Calendar</li>         <li>2. Weekly Meeting Format</li>         <li>3. Regional Facilities &amp; Resources</li>         <li>4. The Foundation of the System is the HCT.</li>         <li>5. Celebration</li> </ol>	<ol style="list-style-type: none"> <li>1) Quarterly calendar:               <ol style="list-style-type: none"> <li>A) To get the job done we must use time well.</li> <li>B) On calendar we will put scheduled events like meetings, clinics &amp; visits</li> <li>C) Each month we will work on special area of health care along with our regular duties.</li> </ol> </li>   <li>2) Weekly meeting format               <ol style="list-style-type: none"> <li>A) We will meet each week to report information from visits and learn.</li> <li>B) Report any urgent problems we know of in our stakes.</li> <li>C) We will decide how to solve these problems.</li> <li>D) We will review our lessons.</li> </ol> </li>   <li>3. Regional facilities &amp; resources:               <ol style="list-style-type: none"> <li>A) The calendar will show when special clinics will be held at the outpost.</li> <li>B) We will be in contact with the visiting nurses or M.Ds.</li> </ol> </li>   <li>4. Health System:               <p>Unless we do our regular visits to learn about the families in our stake and teach them about Health Care the system will not work.</p> </li>   <li>5. On the last day of this work we will celebrate our training and decision.</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly Quarterly Calendar</li>         <li>2.               <table border="1" style="width: 100%; border-collapse: collapse; text-align: center; margin-top: 10px;"> <tr> <td>WEEKLY Format</td> </tr> <tr> <td>OPENING</td> </tr> <tr> <td>TRAINING</td> </tr> <tr> <td>WORKSHOP</td> </tr> <tr> <td>CLOSING</td> </tr> </table> </li> </ol>	WEEKLY Format	OPENING	TRAINING	WORKSHOP	CLOSING	
WEEKLY Format								
OPENING								
TRAINING								
WORKSHOP								
CLOSING								



HEALTH EDUCATION  
FOR  
EVERYONE

## GUIDELINES FOR THE GUILD

### COMMUNITY IMPACT MODULE CHART

The Community Impact Module Chart is to give a picture of the possible journey of health in the Human Development Project. It is not intended as a final word but as a guideline. The model is a complementary modular design which will actuate all aspects of the health care system. Any Emphasis Month could be interchanged or substituted. The Health Guild which includes Stake Health Care-takers, Kitchen Workers, and Sanitation Workers would meet weekly and make decisions about the ways to impact the community and insure the execution of curriculum and/or events. For example -education might be through the school program, initiating a new medical service, community work or celebration or special training groups. Outside resources will be utilized such as training at the regional facilities which will happen in the latter half of the plan.

COMMUNITY IMPACT MODULES

	Quarter I	Quarter II	Quarter III	Quarter IV
Y E A R  I	HDP Initiation	Community Garden	Health Outpost	Dental Hygiene
	Open House Demonstration	Health Emphasis Month	Immunization Program	Maternal Child
	Water Care	Opening The Kitchen	Parasite Control	Basic Treatments
Y E A R  II	Community Health Evaluation	Pest Control	Paramedical Training	Child Spacing
	Sewage System	First Steps in First Aid	Trash Pick-up	Show Piece Month
	Eye Care Clinic	Domestic Environment	Food Preservation	Community Health Evaluation

# OPEN HOUSE DEMONSTRATION

MASTER IMAGE:



Accent on "set up" areas

PLACE AND PARTICIPANTS:

Auxilliary House, Preschool

TIME: Event for 1-3 Hours  
in Auxilliary House or Preschool  
Same week or month

## KEY POINTS

Greet and Tour

- See whole facility  
Stop at toilets

TOILETS "KEEP COMMUNITY WELL"

USE OF OUTDOORS: MAKES  
PEOPLE HAVE DIARRHEA  
AND STOMACHACHE

- Stop at handwashing  
Set up

"BEFORE ENTERING  
KITCHEN AND EATING  
HANDWASHING IS DONE"

- Stop at Kitchen

"THIS IS HOW TO MAKE  
SOAP" (have cooking)

"THIS IS HOW TO WASH  
DISHES"

- Serve Snack and point  
out relations to five  
food groups.

## METHOD

1. Have one person as  
"host" - explainer"  
at each stop
2. Have set up same at  
Auxilliary house and  
Preschool (and community  
kitchen when set up)

3. Hand washing set up has  
water to pour, soap and  
towel. Have each  
visitor wash for snack

Host graciously  
Holds towel and invites  
guests to wash

4. Soapmaking

5. Dishwashing off ground
  1. wash with soap and  
water.
  2. rinse with water
  3. dry

6. Serve snack

WEEKS MENUS				

## AIDS

### USE TOILET



POST ON FRONT OF  
TOILETS

### CLEANING

- FLUSH WITH  
WATER EVERY  
TIME USE
- SCRUB TOILET  
EVERY WEEK

### HANDWASHING



BEFORE FOOD

### AVOID STOMACH PAIN



KEEP OFF FLOOR  
POST KIT OVER WASHING

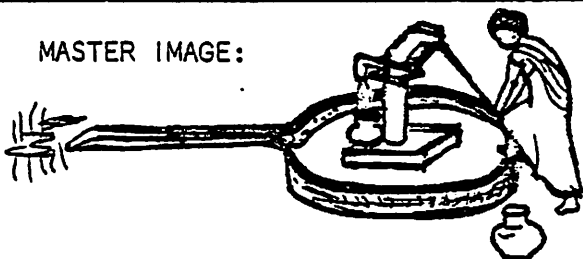
5 FOOD GROUPS





# WATER CARE.

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Village - Guilds plan and initiate

TIME.

Work Day				1-day to 1-week
Plan	Water	Drainage	Celeb	

KEY POINTS

METHOD

AIDS

Identify Community water and drainage needs

- workshop needs
- refer to consult manual
- refer to sanitation section of health manual
- decide on long-range plan and immediate care plan
- make time time and plan for work day.  
consider soakage pits or cleaning drainage ditches

GOOD  
WATER  
AND  
DRY LAND  
BREAKS  
CHAIN  
OF  
ILLNESS

"Talk it up" - Get community involved

Treat well water and set up well bucket procedure

Do this with workers nearby and explain that this will make water safe from disease that makes stomachache

Protect WATER  
+  
Good HEALTH  
IS YOURS

Drainage/dig and clean

Attach well bucket to well and demonstrate how to pour well water into own bucket instead of everyone using his own in the well

Explain how standing water attracts mosquitos and causes illness

Community Feast

Eat and celebrate work, lift up accomplishments

# COMMUNITY GARDEN

MASTER IMAGE:



PLACE AND PARTICIPANTS:  
Garden plot - Health & Agriculture  
Guilds

TIME:  
3 -5 Hours

## KEY POINTS

Review 5 food groups

Review survey - what are  
signal diseases

Make a garden that fills in gaps  
in local diet

Pick a visible location

Get broad community partic-  
ipation

Share the task

50% for kitchen  
50% for workers

## METHOD

Guild Meeting:  
brainstorm lists of what is  
available in village in each  
group

ask what is missing

brainstorm list of signal  
diseases

ask what is caused by poor food

List foods to be grown in  
garden - make plot design

brainstorm locations for  
garden

Organize tasks:  
inkind seeds  
inkind fertilizer  
plow  
make scarecrow  
make fence

Timeline daily watering care

Plan distribution system

Put up a sign

Plan stake replication

## AIDS

FRUIT	VEG	LEG	GRAIN	ANIM

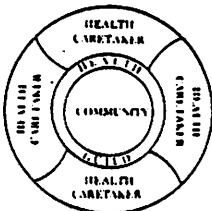
GARDEN FOODS

## PLOT DESIGN

ONIONS	
PEAS	CORN

TIMELINE						
M	T	W	T	F	S	S



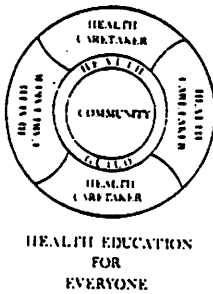


## HEALTH EMPHASIS MONTH

Health Emphasis Month is a construct that grew out of the Health Trek in 1977. It is a vehicle to launch the Health Caretaker Program with total community involvement in creating a consensus on the health needs of the community and accepting the HCT Program to meet these needs. A visible sign will be done which will be related to the major health challenge in the community.

### Components:

1. Mass visitation of 10 - 100% of the population to involve a representative portion of the total community
2. A Community Forum
3. A Health Fair
4. A work day or weekly work day to create the Visible Sign
5. Health caretakers initial training ending with a commissioning service.
6. Trips to health facilities related to the HCT curriculum and the visible sign.



## HEALTH EMPHASIS MONTH (cont.)

### GUIDELINES: HEALTH FORUM

A Community Health Forum is a community wide event that allows the residents to take a relationship to the state of health in their community and to decide to move on the situation with practical proposals.

### OVERALL PLAN

1. The Health Guild is responsible for planning and implementing the Forum
2. Workshop leaders will be trained out of Guild
3. Schedule Forum in relation to tactics and strategy for funding and inking supplies, medicine or Health Professional to serve in community

### THE PREPARATION

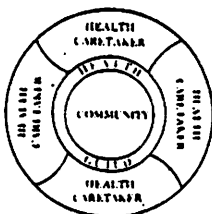
4. Pre-registration campaign; representation from all stakes, all ages
5. Find appropriate site/consider weather conditions
6. Plan nutritious lunch as health demonstration
7. Publicize house to house and invite nearby towns or villages
8. Invite health professionals to participate
9. Make decor piece-imaginal chart to show activity and focus of all Project guilds
10. Obtain or make decor that illustrates: world health issues, what vital healthy persons of all ages and races look like. Posters, etc. that illustrate work being done in health field by all levels of government, UNICEF, etc.

### THE FORUM DAY

11. Health Guild members identified by special dress or symbols
12. Orchestrator role: preferably done by Regional Health Guardian; other resources: consultants from own nation; visiting health professional who is in the area and a colleague
13. New World spin is context for the day with health emphasis: the new world is where a community's health is cared for by local people
14. Interlude - entertainment which relates to good vitality
15. New Human spin: a person's vitality is evidenced by their engagement and interest in life

### ACTUATION

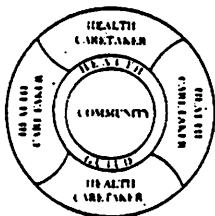
16. Document distribution and assign proposals to guilds for action



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## HEALTH EMPHASIS MONTH (cont.)

COMMUNITY FORUM SET-UP	
<p><u>Recruitment</u></p> <p>People of all ages Entertainment Workshop leaders MC</p>	<p><u>Publicity</u></p> <p>Posters Invitations Flyers Outside Support</p>
<p><u>Practices</u></p> <p>Food - 5 food groups Document Production Enablement forces Celebration</p>	<p><u>Facility</u></p> <p>Decor Workshop areas Registration Assembly Space</p>



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## HEALTH EMPHASIS MONTH (cont.)

### HEALTH FAIR

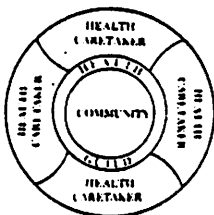
#### Context and Concepts:

The Health Fair is one component of Health Emphasis Month but can be used as a separate event in the community to increase public awareness of health programs in the community. It is an effective way to bring outside resources and services into the community. The fair involves the Health Guild and Health Caretakers in planning and executing the event. Citizens are exposed to health facts and practices.

Pre-Prep Week	Week 1	Week 2	The Day
Plans	Sponsors	Pre-Prep	Final Prep

#### Assumptions:

1. Booth composition is fundamental
2. Articles to give-away are helpful if not excessive
3. Fund raising events for the Health System are effective
4. Demonstration and participation in health practices are effective teaching methods.



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## HEALTH EMPHASIS MONTH (cont.)

### VISIBLE EDIFICE

#### Guidelines:

1. Determine what visible edifice will affect the major contradiction in health care suggested by the Town Meeting Document.

Contradiction	Visible Edifice
Contaminated water supply	Dig New Well or Rebuild Existing Well
Skin Disease due to Sanitation	Build a Bath House
Malaria due to standing water	Build a draining system
Inadequate Housing	Build a low cost model house

2. Use technical consultants or guide to aid in planning.
3. Obtain Funding or Inkind Materials.
4. Plan work days for the third week.
5. If possible complete the edifice within the month.
6. The major responsibility should belong to the Health Guild and HCT but participation by the whole community is encouraged.
7. Competition between stakes, singing, snacks and entertainment highlight the spirit of the day.

# HEALTH EMPHASIS MONTH (cont.)

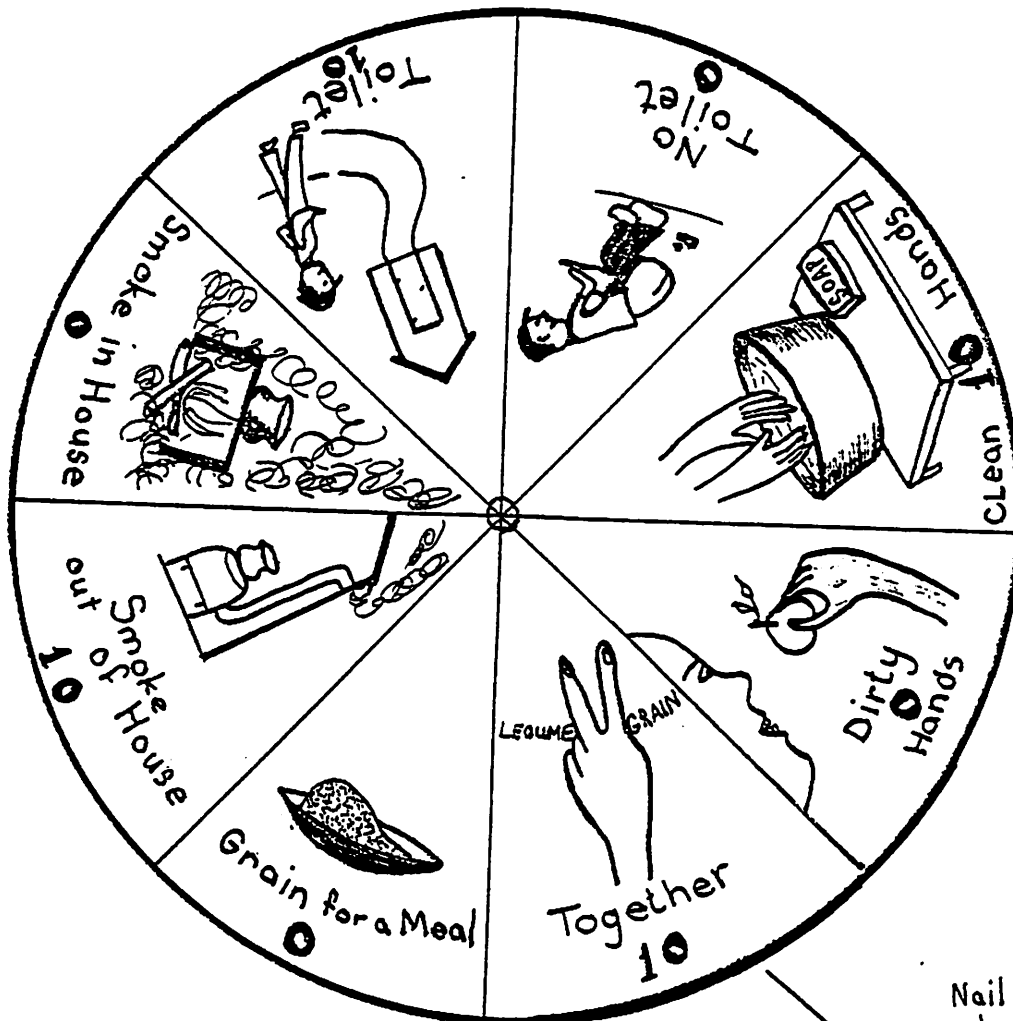
GAME

WIN POINTS TO VITALITY

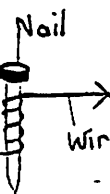
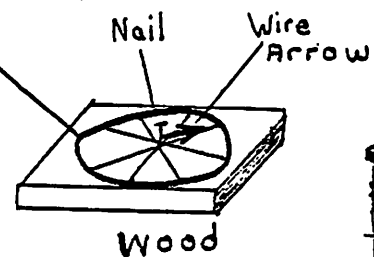
HEALTH FAIR

## Direction to Game:

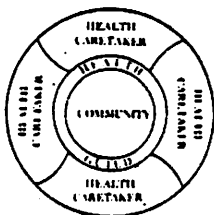
1. Spin the arrow - round and round
2. Where it lands is the point you get
3. You get 4 turns for a small coin
  - If you get 30-40 points - you WIN!
  - If you get 0-20 points - you lose.
4. If you win you get another turn free



1. Cut out above circle
2. Color is you like
3. Paste on wood
4. Hammer nail into wood
5. Make an arrow out of wire and wrap it around nail





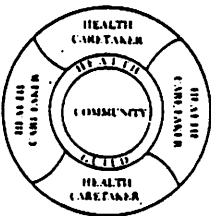


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## HEALTH EMPHASIS MONTH (cont.)

### HEALTH FAIR

BOOTH	
Suggestions	Sponsors
1. Registration	HCT
2. HDP general information	HDP Auxiliary
3. Guilds	Agriculture Commerce Training Services Health
4. Microscope	Public Health
5. Prenatal care and delivery	Government Hospital
6. Ambulance service	Regional Center
7. Family Spacing Methods	Family Planning Association
8. Dental Hygiene	School of Dentistry
9. Medications	Pharmaceutical Company
10. Soft drinks	Soda Company (proceeds to HCT Program)
11. Games	
12. Movies	
13. Other HDPs	



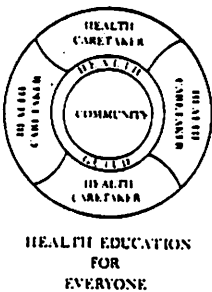
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## HEALTH EMPHASIS MONTH (cont.)

Health Fair Count-Down Model			
Pre-Prep Week	Week 1	Week 2	Week 3
Planning by Auxiliary and Health Guild  1) set date  2) evaluate health needs to inform types of booths  3) list possible sponsors	1. Visit Booth Sponsors  2. Plan location  3. Arrange for tents tables dividers  4. Plan happenings for day raffles clowns entertainment  5. Invitations to officials friends of projects dignitaries from regional offices.	Arrange:  1) storage space  2) electricity  3) transportation  4) personnel for booths  5) publicity campaign	Final Set-up:  1) set-up booths and tables  2) decor space with balloons, flags, banners  3) send band out into community

### Booth - Suggestions and Sponsors:

1. Registration - HCT
2. HDP general information - HDP Auxiliary
3. Guilds: Agriculture  
Commerce  
Training  
Services  
Health
4. Microscope - Public Health
5. Prenatal care and delivery - Government Hospital
6. Ambulance Service - from Regional Center
7. Family spacing methods - Family Planning Association



## HEALTH EMPHASIS MONTH (cont.)

### TRIPS

#### Trip Guidelines:

The trips included in the month are for health caretakers, health guild members, auxiliary members and community leaders. Suggested visits include:

1. Hospitals - to learn referral mechanisms, admission procedures and view the hospital environment
2. Health department at the Regional Center
3. A maternity clinic at a hospital or regional health facility
4. A sanitation department or nutrition department at a regional facility
5. A nearby Human Development Project if available
6. A museum on health if available.

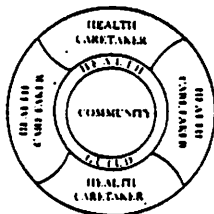
Check with health and sanitation officials of the government for site suggestions and help in making arrangements. Be sure that transportation is available when needed.

A reflective conversation at the end of the day will help to ground the experience for the members of the group.

1. What do you remember?
2. What did you learn?
3. What do you want to know more about?
4. How does this affect your community?

#### Practices:

1. Transportation
2. Schedule time for trip with HCT, Guild and officials
3. Contact resources and arrange time
4. Announce in HCT class and Guild meetings.



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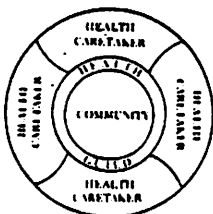
## HEALTH EMPHASIS MONTH (cont.)

### COMMISSIONING

Commissioning of the Health Caretakers is the final event of Health Emphasis Month. A sit down dinner is planned with all HCT and all local leaders who have been working in all parts of this program. The format is as follows:

CEREMONY FOR COMMISSIONING			
Opening	Celebrate Past	Celebrate Future	Closing
Songs	Reflection on Health Emphasis Month	Talk: "3 great weeks" Future System explained	Song
Ritual	What do you remember?  What did you learn?  How will your village be different?	Commissioning: <u>Presentation of gifts-</u> Scale and breeches First aid kit Grid of Community Health record cards	
Meal		<u>Ritual-</u> HCT by Stake Midwives, etc. Elders - Accountability  <u>Certificate</u>	Send-out

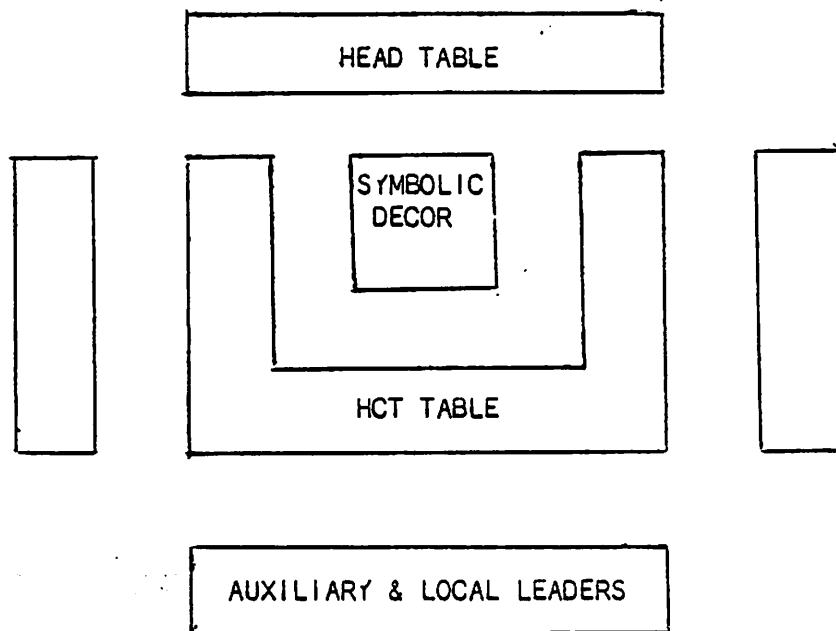
Decor: Microscope, Anatomy Model, and 5 finers of nutrition.



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## HEALTH EMPHASIS MONTH (cont.)

### TABLE SETTING FOR COMMISSIONING



#### Head Table

1. A symbolic local leader
2. An instructor from outside village
3. Other leaders, instructors, speakers, etc.

# OPENING THE KITCHEN

MASTER IMAGE:



WE FEED OURSELVES FOR VITALITY

PLACE AND PARTICIPANTS:

Kitchen &/or Grounds near-by

TIME:

One Afternoon

## KEY POINTS

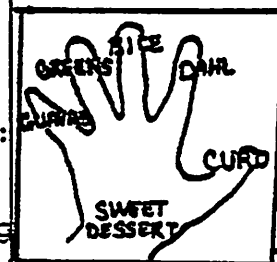
- Set-up Kitchen  
(see model in Nutrition section)
- Cooking  
  
Menu: with 5 food groups-  
Food from garden if possible
- Kitchen Tour
- Gathering  
Singing  
Talk about Garden and Kitchen  
"Garden is for Kitchen"  
"Kitchen is for feeding Prog."
- Celebrate Kitchen with special song and perhaps local rites and rituals
- Feast and Serve
- Clean-up

## METHOD

- Clean set-up Kitchen with few volunteers
- Special flowers/ leaves on building
- Cook with help of volunteers
- Be sure decor on walls Includes:
  - 1) 5 food groups
  - 2) Daily Menu
  - 3) Feeding Programs in being
- Kitchen Tour
  - 1) Have people to serve
  - 2) Use table for serving
  - 3) Use flowers etc. for decoration
- Sing
- Appropriate Conversation  
Leader talks about community  
Garden and Kitchen and Feeding Program
- Sing song to celebrate opening of Kitchen
- Bring food to table after ritual

## AIDS

Supplies needed in cleaning Kitchen:  
1) mop 2) cloths  
3) water 3) soap



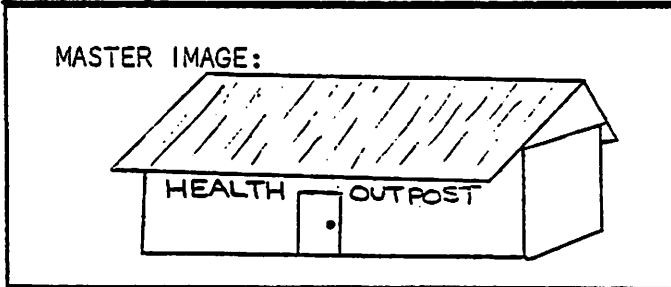
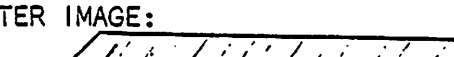
Write your Menu on similar card & place on Serving Table

Use Clean-up Model in Kitchen

NOTE: Review Hand-washing, Food Cook - Off Floor, Utensil Care- soap & water keep off floor

HEALTH OUTPOST
----------------

MASTER IMAGE:



PLACE AND PARTICIPANTS:  
Health Outpost  
Caretaker Community

TIME: two hours

### KEY POINTS

## METHOD

AIDS
------

The health Outpost is a  
symbol  
the whole community needs to  
participate in its opening

The health Outpost is a  
symbol  
the whole community needs to  
participate in its opening

Show Outside  
p rofessionals your facility  
ready for them to participate  
in

Show Outside  
p rofessionals your facility  
ready for them to participate  
in

Official Opening of Outpost

invite dignitary  
posters around community  
advertising services

Health Caretakers invite  
community on day of open-  
ing

Ribbon Cutting

Tour

show community facilities

Official Opening of Outpost

invite dignitary  
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Health Caretakers invite  
community on day of open-  
ing

Ribbon Cutting

Tour

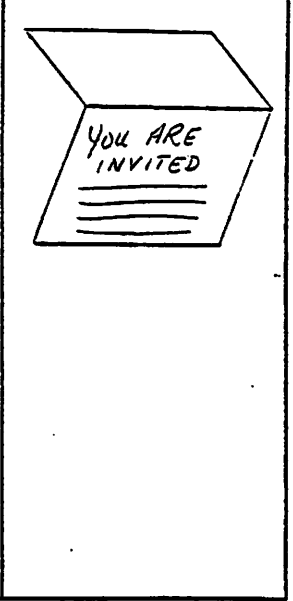
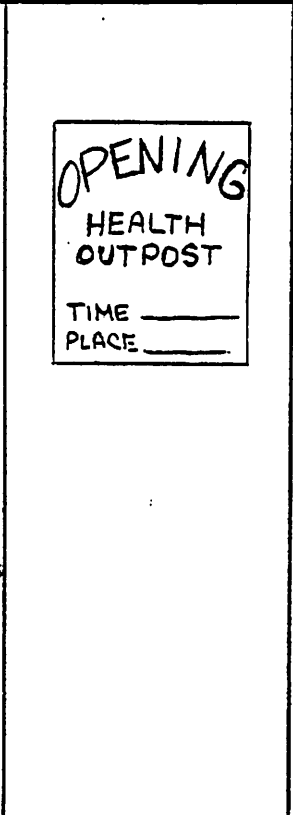
show community facilities

Put notice in community  
bulletin

Invite all interested  
professionals

Put notice in community  
bulletin

Invite all interested  
professionals



# IMMUNIZATION PROGRAM

MASTER IMAGE:

WE CAN STOP DISEASE BEFORE IT STARTS

PLACE AND PARTICIPANTS:

HEALTH OUTPOST CLINIC

TIME:

ALERT  
PEOPLE

GET  
VACCINE

REGISTER  
TREAT

REGULAR  
CLINIC

## KEY POINTS

Visit the Regional Health Center and set a date for a Doctor and Vaccine

Alert everyone in each stake about the need to prevent serious disease

Sign up everyone on a record form

Hold a one day vaccination Day for each stake

Do regular Follow up in each stake

Hold scheduled Clinic Days

## METHOD

The Guilds and Health Caretakers visit Regional Health Center

Arrange for  
Doctor or nurse to come  
vaccine, syringes  
individual records  
set a date for the clinic

Before each clinic, visit each family in the stake and sign them up.

Show the people charts and pictures of why this is important.

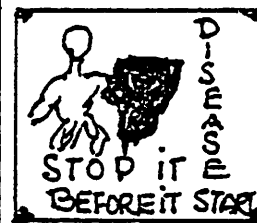
Hold a vaccination Day for everyone

Set regular dates for clinics

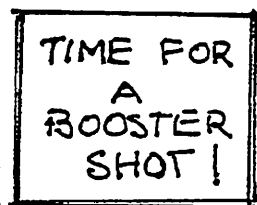
Check the records for next shots  
emphasize importance of keeping record in safe place  
bringing it to clinic with them

Keep accurate records in the Health Outpost.

## AIDS

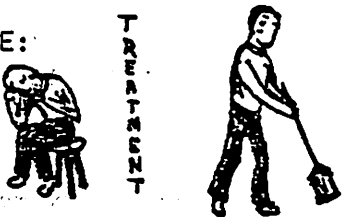




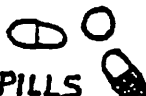
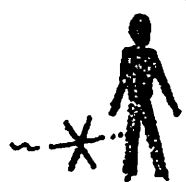


MY RECORD			
DPT	✓		
POLIO	✓		
SMIPAX	✓		
BCG	✓		
MEASLES			





# PARASITE CONTROL

<b>MASTER IMAGE:</b>  <b>PARASITES ROB YOUR STRENGTH</b>		<b>PLACE AND PARTICIPANTS:</b> <b>HEALTH OUTPOST CLINIC</b>				
		<b>T</b>	<b>FIND</b>	<b>DISCOVER</b>	<b>TREAT-</b>	<b>FOLLOW</b>
		<b>M</b>	<b>THE</b>	<b>THE</b>	<b>MENT</b>	<b>UP</b>
		<b>E</b>	<b>TOOLS</b>	<b>INFECTION</b>	<b>DAY</b>	
<b>KEY POINTS</b>		<b>METHOD</b>			<b>AIDS</b>	
<p>Get the attention of the village</p> <p>Arrange for Clinic Day</p> <p>Treat the infected people</p> <p>Do follow-up</p>		<p>Show the village pictures and charts of parasites and people</p> <p>Go to the Regional Health Center:</p> <ol style="list-style-type: none"> <li>1. Arrange for staff for Clinic Day</li> <li>2. Diagnostic equipment</li> <li>3. Check in kind medicine</li> <li>4. Pick up cards for all the people</li> </ol> <p>Sign up people for the Clinic and give them specimen containers</p> <p>Test the specimens</p> <p>Contact and treat infected people</p> <p>Do repeat tests each 6 months</p>			    <p><b>SPECIMAN CUP</b></p>  <p><b>PILLS</b></p>  <ol style="list-style-type: none"> <li>1. USE TOILETS</li> <li>2. WASH HANDS BEFORE EATING</li> </ol>	

# DENTAL HYGIENE MODULE CHILDREN'S PROGRAM

MASTER IMAGE:



Your Teeth are for Life!

PLACE AND PARTICIPANTS:

Pre-school Students

TIME: Visit each class 1 to 2 days

\*You will return in 1 week and check their smiles.

## KEY POINTS

Introduce school Dental Hygiene Program

- Why brush teeth - plaque causes decay
- Demonstrate tooth technique

How long keep your teeth?  
Daily care means having teeth as an elder

How do you take care of your toothbrush

- Wash with soap and water
- Rinse
- Dry on paper in sun
- Store in box or paper cup

What are the 5 food groups

- Basic 5 builds good teeth and cares for them
- Good teeth are necessary for chewing

Coloring book pages  
1 to each child

## METHOD

- Contact school principal and arrange to do program
- Demonstrate program to teachers
- Provide initial tooth brushes
- Check on Fluoride donation by government
- Set time of day for brushing with the teachers
- Set-up long term way of getting supplies
- Put-up Dental Hygiene Posters in the village

Steps for brushing teeth:

- 1) Brush up and down with edge of brush
- 2) Brush inside and outside of teeth
- 3) Use short strokes with a gentle scrubbing action

## AIDS

- Use pictures of
- toothbrush
- teeth with plaque
- Decayed tooth

Ritual  
for Tooth Brush

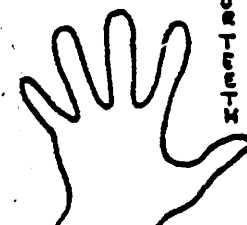
Teeth for Smile  
Teeth for Food  
Teeth for Life

Brush  
Brush  
Brush

pause  
Smile!



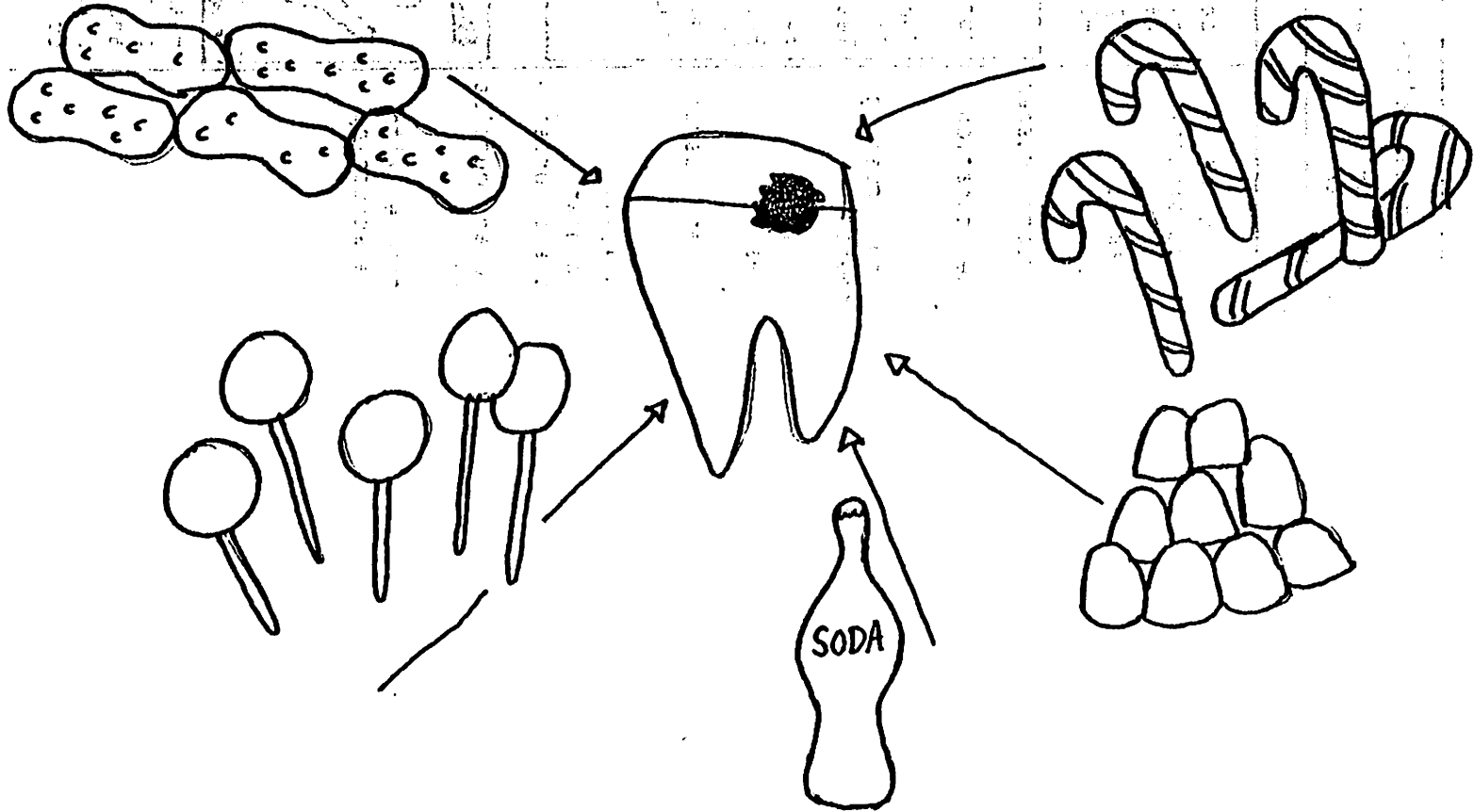
BUILD AND CARE FOR TEETH



5 FOOD GROUPS

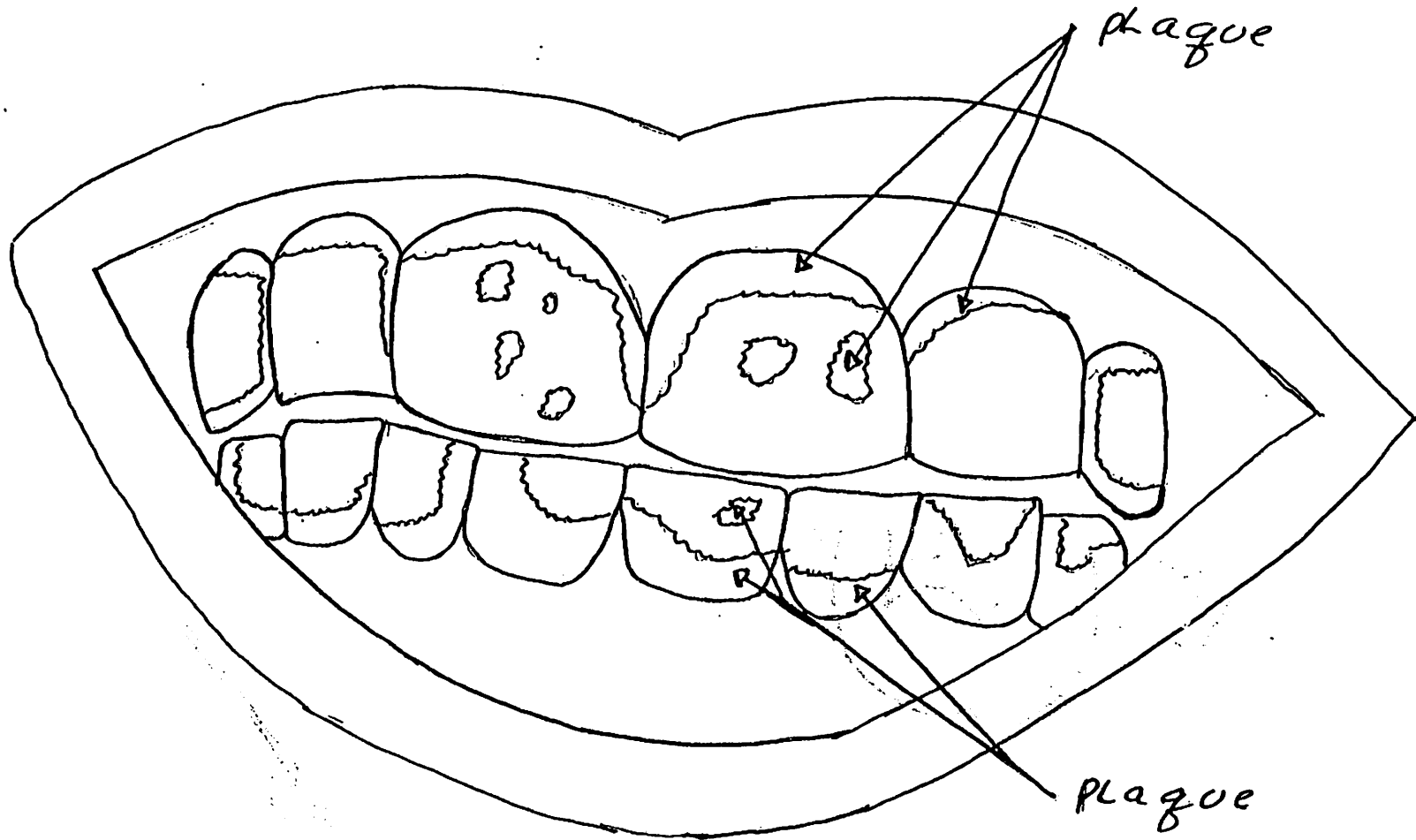
Pass out copies of toothbrush and teeth with plaque for coloring.

# Cavities



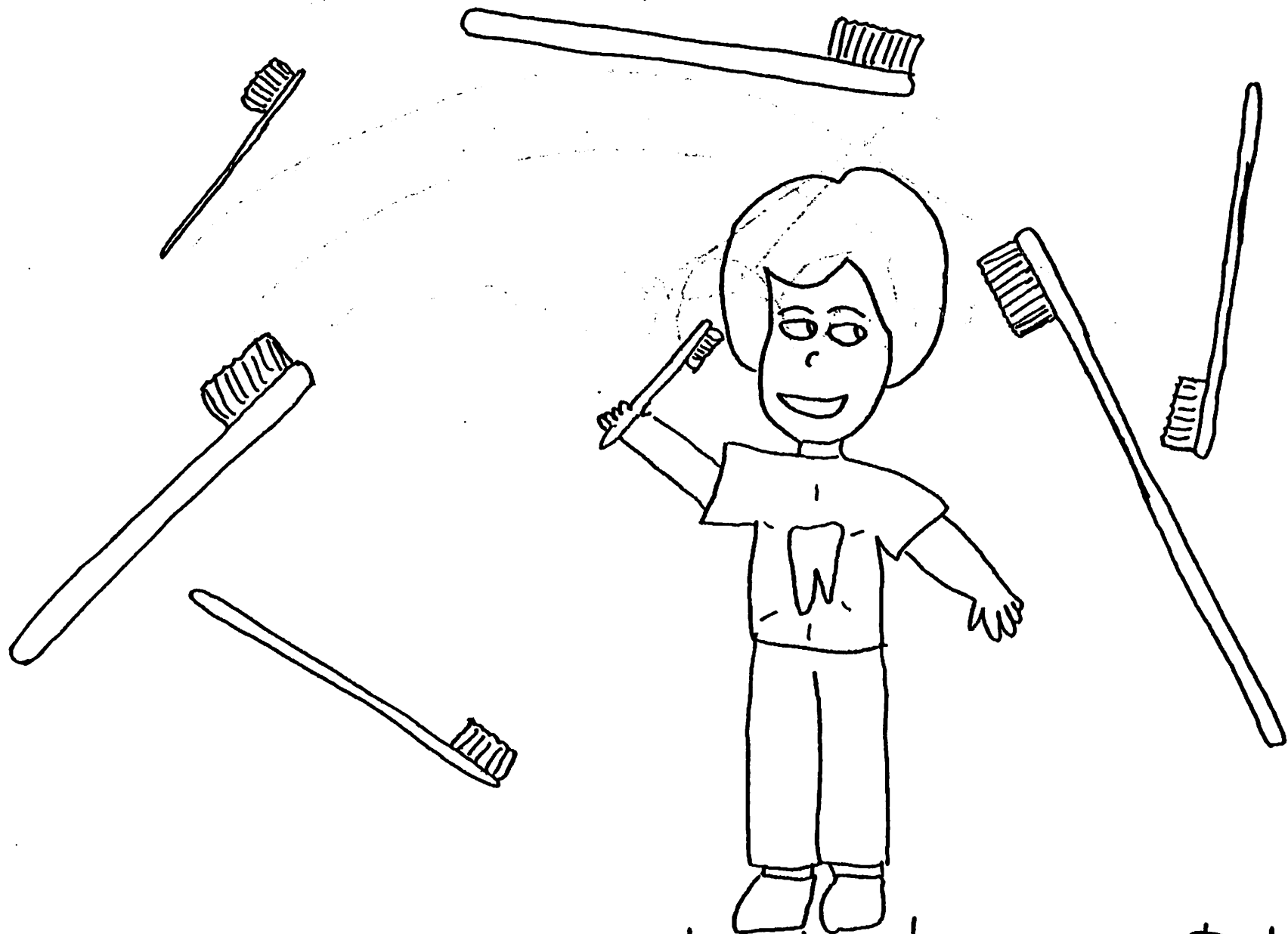
... holes in your teeth made by plaque

PLAQUE IS:



the sticky germs that grow on your teeth  
and help make cavities

This is a soft toothbrush



5.62

use it everyday to clean your teeth

DENTAL HYGIENE MODULE  
Adult Program

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Health Outpost and adults of the village

TIME:

Weekly workshops at Health Care Outpost

KEY POINTS

- Plaque causes Tooth Decay and sore gums
- Tooth Brushing technique demonstrated
- Flossing  
Removing plaque from teeth
- The Five Food Groups build good teeth and care for them
- Good teeth are needed for chewing your food and to maintain health

METHOD

Tooth Brush and flossing demonstrated

Set-up a visiting Dentist Program for Dental Hygiene emphasis month

Health Caretakers to recruit mothers to Health Care Outpost for training

Health Caretaker to encourage entire families participation at the Outpost

Have toothbrushes and floss available for mouth

Technique:

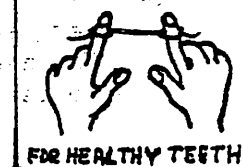
See Children's Program

AIDS

Toothbrushes  
Floss (strong thread)



HEALTHY GUMS

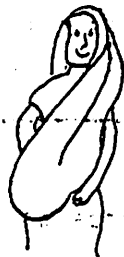


5 FOOD GROUPS FOR



# MATERNAL CHILD

MASTER IMAGE:



Strong Babies

Strong Future

PLACE AND PARTICIPANTS:

Stakes - Health Caretakers

TIME:

1 Hour each week

## KEY POINTS

Show safe delivery practices.

Involve Village midwives -  
- Declare their work good  
- Then push a step further

See every Pregnant Woman.

- Get her immunized.
- To take vitamins
- To use Packet.

## METHOD

- Invite village midwives to meeting.  
a) Brainstorm delivery techniques with team.
- Show delivery packs
- Discuss immunization (refer to Health Caretaker curriculum - Tetanus)
- Discuss prenatal vitamins. (refer to Nutrition section - Health Caretaker curriculum).

## PLAN BLITZ -

- Visit every pregnant woman in each stake.
- Hold stake meeting.
- Teach - new practices.
- Sell delivery packs for small amount.
- Arrange for mass tetanus immunization of these women.
- Pass out iron tablets.
- Make Victory Board for Outpost.

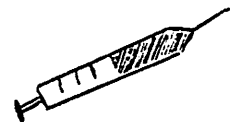
## AIDS

### DELIVERY PACK

RAZOR



STERILE STRING



### VICTORY BOARD

STAKE	UPHE	SHOT	PACK	VITA.
1				
2				
3				
4				
5				

# BASIC TREATMENT

MASTER IMAGE:



PLACE AND PARTICIPANTS:

Visiting Nurse or Doctor & Caretakers at Health Outpost

TIME:

One 3 hour session/week

## KEY POINTS

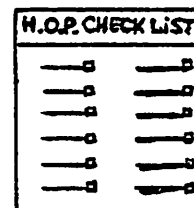
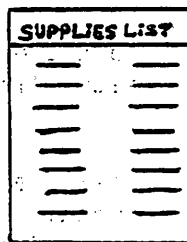
- Support use of symptom-treatment manual by classes & by professionals
- Hold Practical Laboratories
- Translate Manual and Distribute
- Symbolize new skills

## METHOD

Recruit nurses or doctors to come for 3 hour session once a week for 4 weeks.

- Show them Symptom-Treatment Manual and:
  - 1) Ask them to demonstrate treatments described in four sessions each one covering 1/4 of manual.
  - 2) Ask if we need to get any supplies for him.
  - 3) Inkind supplies.
  - 4) Schedule class times when you know all caretakers will be available.
- Before classes start:
  - 1) Give a translated manual to each caretaker.
  - 2) Review outline and act out a couple of examples.
- Upon completion of month's classes:
  - 1) Announce new skills in Guild & stake meetings.
  - 2) Hold new rite of passage for caretakers.
  - 3) Celebration

## AIDS





# 1 YEAR COMMUNITY HEALTH EVALUATION

MASTER IMAGE:

COMMUNITY HEALTH VICTORY		
1	2	3
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Community Health Victory

PLACE AND PARTICIPANTS:

HEALTH CARETAKERS + GUILD

T	Clinic	Stake	Data	Work shop.
M	monthly	visit-	holding	post the
E	totals	ation	chart	victory

## KEY POINTS

Tabulate monthly totals of each ethnic participation

Visit families in stakes and check:

foods eaten  
immunizations  
arm band measurement

Place all data holding charts on wall at HDP for planning

Do years victory chart as a guild

Post the victory and celebrate

## METHOD

Create 12 month holding chart which would hold events and tabulations.

Supplies - Health Caretakers takes the following on visits

- nutrition survey form
- (nutritional manual)
- arm band

- immunization holding chart (make sheets for each family and stake)

- total number of people each immunization

Use large sheets of paper and place nutrition and immunization and clinic charts on wall

Get long sheet of paper and draw month out

- workshop accomplishments by months (include sanitation, kitchen, health in schools)

Post victory chart in HDP or kitchen and serve health snack

Invite the community

## AIDS

CLINIC TOTALS											
NAME	AGE	SEX	DOB	1	2	3	4	5	6	7	8
IMM											
BOO											
CHOC											
GEN											

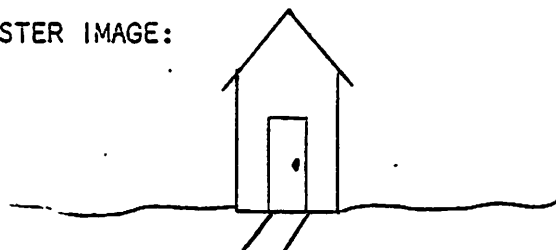
IMMUNIZATIONS			
NAME	BOO	DPT	GEN
IMM	✓	✓	B
BOO		✓	✓
CHOC			
GEN			✓

Place ✓ for SERIES  
B for BOOSTER  
- for CONTINUED PROTECTION  
BLANK IF PROTECTION NEEDED

"MASTER IMAGE"

# SEWAGE SYSTEM

MASTER IMAGE:



PLACE AND PARTICIPANTS:  
Builders and Health Guilds  
Stake Meetings

TIME: 5 - 6 Hours

## KEY POINTS

Identify Community Waste Disposal Needs

"Talk It UP" - get Community Involved

Toilet Construction Work Day

Community Celebration

## METHOD

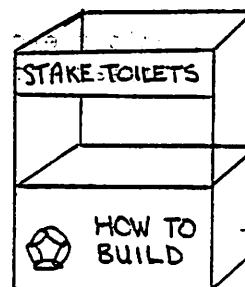
- workshop needs refer to sanitation survey (how many toilets/stake)
- workshop - choice of toilets type (refer to sanitation section of manual)
- Make plan to build 2 per stake and long range one per house
- estimate costs workshop community fund raising plan and outside support
- Secure materials
- present plan in stake meeting & give context on relation of waste to sickness
- recruit workers
- Set up Work Day to build 2 per stake - have materials ready
- Eat & Celebrate work Lift up accomplishments Claim promises

## AIDS

UNPROTECTED WASTE SPREADS DISEASE

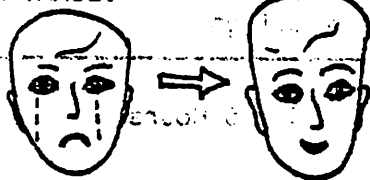


BUILD A TOILET-  
GOOD HEALTH IS  
YOURS!



# EYE CARE CLINIC

MASTER IMAGE:



PLACE AND PARTICIPANTS:

HEALTH OUTPOST CLINIC

TIME:

Contact  
Center

Alert  
People

Equip  
Clinic

Hold the  
Clinic

KEY-POINTS

METHOD

AIDS

Arrange for help from the  
Regional Health Center

Alert the people in stakes

Secure the medicine for  
treatment

Hold their eye care and  
treatment clinic

Visit the Regional Health Center  
and schedule professional  
care for clinic

Obtain flip charts for  
education in eye care

Visit the people in the stakes  
to tell them about the  
program

Use posters and flip charts  
to tell the story

Publicize the date of the  
clinic

Obtain Medication to have on  
hand in clinic

Have treatment kit ready for  
display

Hold eye care class in school

Hold the eye care and treatment  
clinic

Make village aware that local  
treatment is available



YOU CAN PREVENT  
BLINDNESS

BY:

1. 5 FOOD GROUP
2. FLY CONTROL
3. CLEANLINESS  
OF EYES

THIS IS  
A  
SERIOUS  
PROBLEM



WHEN EYES ARE RED  
RINSE WITH WATER  
AND DRY WITH CLOTH  
USE SEPARATE  
CLOTH FOR THOSE  
WITH RED EYES.



# PEST CONTROL

MASTER IMAGE:



Flies Carry  
Disease

Rats Eat Our Food

PLACE AND PARTICIPANTS:

Homes in Stakes

Obtain  
Resources

Alert  
All  
The People

Implement  
The Plan

Regular  
Follow-up

## KEY POINTS

Contact public health  
officials for inform-  
ation

Public Awareness  
Campaign

Develop pesticides and  
other resources

Train implementation  
team

Implement the plan and  
repeat at 3 month  
intervals

## METHOD

Obtain information from  
government with best form of  
pest eradication

Develop flip chart and posters  
showing rodents, lice,  
scabies, identifying them as  
disease carriers.

Alert the public through visits  
to homes

Obtain inkind if possible  
enough pesticide to treat  
entire village

Obtain pesticides for body lice;  
Instruct on washing clothes  
and bedding and persons.

Train a team in each stake to  
distribute pesticides so a  
whole stake can be done at  
once.

Repeat 2nd stage of lice  
control

Repeat Rodent control every  
3 months

## AIDS

PEST  
CONTROL  
MANUAL



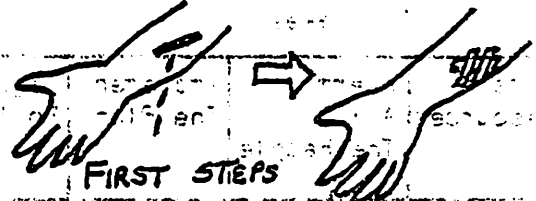



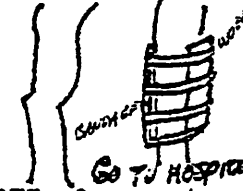
TRAINING DAY  
STAKE GRID  
PESTICIDE DIST.  
DOOR TO DOOR  
CAMPAIGN



CAMPAIGN CHANT:

No more itching-  
No more scratching  
No more crawling  
things at night-  
WE FEEL GOOD!  
WE LOOK GOOD!  
We can care  
For life!

# FIRST STEPS IN FIRST AID

MASTER IMAGE:		PLACE AND PARTICIPANTS:Health Outpost for 1) Health Caretaker Team 2) Guild &/or Women's Club 3) High school			
		TIME (1 hour)			
		Prep Room & Supplies	Demon- strate	Students Demon- strate	Reflec- tion
KEY POINTS		METHOD		AIDS	
<p>Emergency Care means immediate care to important injury</p> <p>Most Important in wounds is:</p> <p>1) Bleeding control 2) Germ spread prevention</p> <p>Demonstrate care of:</p> <p>Wound</p> <p>1) Stop bleeding 2) Clean wound</p> <p>Severe wound to Hospital IMMEDIATELY</p> <p>Burn</p> <p>1) Stop blistering and pain 2) Cover burn</p> <p>Severe Burn to Hospital IMMEDIATELY</p> <p>Broken Bone</p> <p>1) Stop bleeding 2) Keep limb straight</p> <p>Take to Hospital IMMEDIATELY</p> <p>* Return Demonstration by Students</p> <p>* Conversation on Opportunities for care</p>		<p>Demonstration: (Materials needed) soap water bandages antiseptic solution splint</p> <p>Wound</p> <p>1) Show by applying direct pres- sure with heel of hand with cloth over wound 2) Wash own hands when bleeding under control 3) Wash wound with soap &amp; water 4) Cover with dry clean dressing 5) Change daily</p> <p>Burn</p> <p>1) Cold water/ice to burn 2) Dry dressing to burn 3) Change daily</p> <p>Broken Bone</p> <p>1) If bleeding, stop bleeding with direct pressure 2) Place splint on either side of limbs (pillow or blanket roll, sticks) to stabilize 3) Wrap (return demonstration by students)</p> <p>Conversation:</p> <p>1) When have you seen wounds, burns, broken bones that needed care?</p> <p>2) What have you learned?</p>		<p>FLIP CHART OF PROCEDURES</p> <p>STOP BLEEDING</p>  <p>DIRECT PRESSURE</p>  <p>BURN COLD WATER/ICE</p>  <p>KEEP CLEAN COVER</p>  <p>GO TO HOSPITAL</p> <p>NOTE: Secure local Medical Agents to come and instruct in fol- lowing:</p> <p>1) Transportation of ill &amp; injured 2) Poison Control 3) Head injuries 4) Artificial Respiration 5) Heart Attacks 6) Shock 7) Illnesses 8) Animal Bites</p>	

# DOMESTIC ENVIRONMENT

MASTER IMAGE:

TAKE CARE OF YOURSELF AND YOU  
CARE FOR OTHERS

PLACE AND PARTICIPANTS:

Health Caretakers recruit mothers and  
teach in someone's home in each stake.

TIME:

Care of Self
Food Plan      Beautify

## KEY POINTS

Personal Care  
Foods that make you  
strong

Show your vitality  
A "clean you" is beauti-  
ful

## METHOD

Use Health Caretakers curricu-  
lum topic: Nutrition as  
the first teaching step

Have mothers write down menus  
for week - using menu  
blank forms.

Ask if enough calories present  
Are family members gaining  
weight?

## SERVE SNACK

Demonstrate:

Hair - comb  
massage scalp  
wash and rinse  
apply rinse or oil  
if dry

Nails - wash with soap &  
water  
trim with file  
polish if wish

Face - wash and pat dry  
lotion to face  
apply make-up

Hands & Arms -  
wash before food  
preparation and  
infant care  
apply lotion if wish

## AIDS

  
5 FOOD GROUPS

MEALS FOR WEEK						
M	T	W	Th	F	S	S

EXAMPLE	
F	BANANA
V	TOMATO
G	RICE
L	Dal
A	Curd

Inkind any or  
all of the fol-  
lowing:

combs  
soap  
brushes  
nail files  
polish  
lotion  
make-up

# DOMESTIC ENVIRONMENT

## MASTER IMAGE:

TAKE CARE OF YOUR SPACE AND  
YOU TAKE CARE OF YOURSELF



## PLACE AND PARTICIPANTS:

Health Caretakers recruit mothers and  
teach in someone's home in each stake

## TIME:

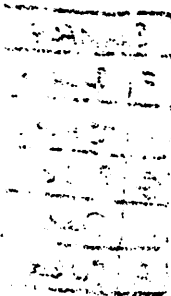
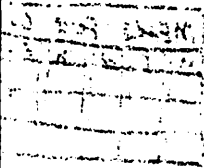
Care of Space

housekeeping

decor

## KEY POINTS

Housekeeping -  
Clean house keeps your  
family well and free of  
pests



## Decor

Bring wonder of world  
into your home

## METHOD

### Conversation with mothers:

1. when do you sweep & mop
2. How would you teach your  
daughter to store things?
3. What is important about  
storing belongings?  
store when clean  
store neatly  
store off floor

4. What is important to prevent  
lice and pests?

clean clothes and clothes in  
storage

wash hands before preparing  
food.

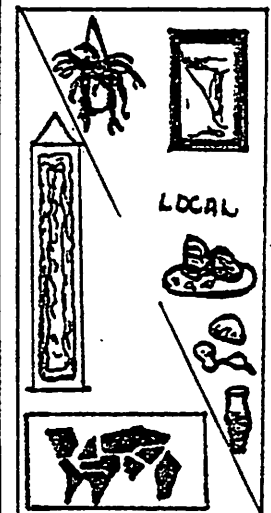
cover foods

carefully dispose of wastes

keep animals out of house

- Signs of love for local
- Signs of love for global
- Have mothers work on new  
decor for homes

## AIDS



# PARAMEDICAL TRAINING

MASTER IMAGE:

INTENSIFY THE  
TRAINING

PLACE AND PARTICIPANTS:

REGIONAL HEALTH CENTER

TIME:

Identify  
Resources

secure

scholar-  
ship

recruit

and  
send out

Celebrate

return

KEY POINTS

METHOD

AIDS

Identify training  
resources

Obtain from the regional  
Health Center a list of  
training opportunities or  
propose training need and  
ask training center to make  
program available

Recruit candidates

Raise necessary funds for  
travel, etc.

Recruit two candidates  
from village.  
Health Guild and Health  
Caretakers most likely  
source

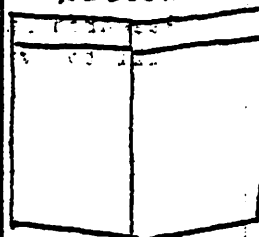
Obtain necessary funding

Have a sendout from the  
village on departure day

Celebrate return

Celebrate the return of the  
trained paramedic

RESOURCES

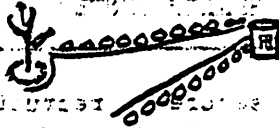


CATALOGUE



# TRASH PICK UP

MASTER IMAGE: Village Beautification Day



We Care About the Future

PLACE AND PARTICIPANTS:  
Village clean up - work day

TIME:  
A one day happening with regular follow up

## KEY POINTS

Research regarding a land fill for village

Arrange for containers, cart, etc

Do the BLITZ

Repeat at intervals

## METHOD

Travel into countryside to find a suitable landfill

Obtain a manual about a land fill- see sanitation manual.

In kind containers  
Decor containers with grid of community on side

cars or trucks to transport garbage to landfill

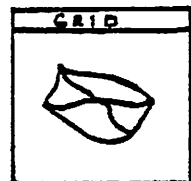
Arrange plan so that all geography is covered

place receptacles around village  
Have clean up workday

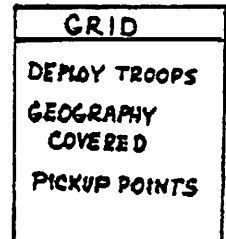
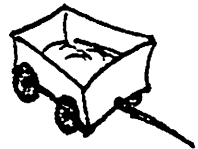
Arrange for regular trash pickup

Repeat the Blitz every three months

## AIDS



PAINT GRID OF COMMUNITY

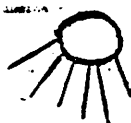


# FOOD PRESERVATION

MASTER IMAGE:



Use of Pressure Cooker



sun  
drying  
fruit

PLACE AND PARTICIPANTS:

Community Kitchen

Secure  
equipment

gather  
food

Food  
preservatn  
day

Monthly  
food  
preservato  
day

## KEY POINTS

## METHOD

## AIDS

### 1. Secure Pressure Cooker

secure jar with lids and  
rubber seal

### 2. Gather fruits/vegetables, meats

### 3. Plan Food Preservation Day

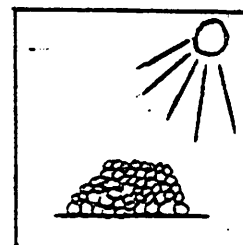
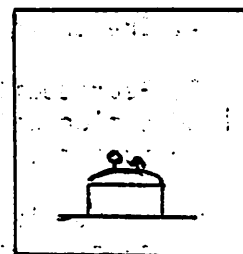
### 4. Plan Monthly Food Preservation Day

Inkind/Purchase in larger cities

1. Each student brings fruit
2. Use vegetables from com-  
munity garden
3. Plan food preservation day  
around butchering time

1. Publicize
2. Work through women's activ-  
ity program
3. Work with agriculture guild
4. Have planning event
5. Have education on use of  
Pressure Cooker and theory  
of preservation
6. Sundrying method:  
place fruit on dry black  
cloth in direct sunlight  
after fruit is dried - place  
in tight dry can for storage
7. Food Storage  
refer to "Food Storage" in  
Nutrition section of this  
manual

1. Agriculture Guild plus  
women's activity program
2. Develop financing of sup-  
plies
3. Promote throughout village



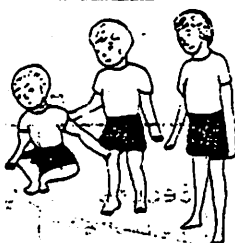
WEEK \_\_\_\_\_

## CHILD SPACING

DAY \_\_\_\_\_

MASTER IMAGE:

Child Spacing



Responsible Parenthood

PLACE AND PARTICIPANTS:

Stakes - Men - Women - Youth

TIME:

One hour sessions

## KEY POINTS

1. Stress child spacing as context for responsible parenthood.

2. Pregnancy and breast feeding puts added stress on mother's body.

3. Give one year for pregnancy two years for nursing.

4. One child every three years.

5. Reproduction system education points to indicative to mother's health

6. Responsible parenthood means child-spacing.

## METHOD

1. Contact family planning office for: Posters - slides - movies - guest speakers.

2. Stake meeting emphasis with group presentations. Separate men and women.

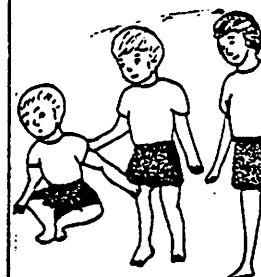
3. Mother's classes discuss reproduction-nursing-effects on mother's stamina.

4. Teenage classes on responsible parenthood.

5. Posters in every stake-change weekly

## AIDS

ONE BABY  
EVERY THREE  
YEARS MEANS  
HEALTHY BABIES  
HEALTHY MOTHERS



PARENTHOOD  
CHILD SPACING

ONE EVERY 3 YRS.

HEALTHY MOTHERS

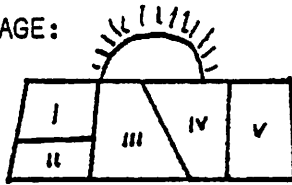
GIVE

GOOD MILK

BIG BABIES

# SHOWPIECE MONTH MODEL

MASTER IMAGE:



THE NEW SETTLEMENT

PLACE AND PARTICIPANTS:

Village Square and Stakes

TIME:

one day event

## KEY POINTS

Guild displays

Stake tours

Village journey symbol

Celebration

## METHOD

Each guild will create a display or symbol telling its story.

The village square set up for display

Stake guilds will lead guided tours to show stakes and explain function.

Emphasize visible signs

Community and kitchen gardens

Create a graphic art form to tell the 2 year journey

Banners

Entering the 20th Century

Invitations to all the village

Invite outside dignitaries and neighboring villagers

Entertainment throughout the day

End the day with toasts to the future

## AIDS

PICTURES OF BEFORE AND AFTER

PICTURES OF - GARDEN

- NEW WATER SYSTEM

- HEALTH OUTPOST

- PRESCHOOL

- SANITATION IMPROVEMENTS

- FOOD STORAGE

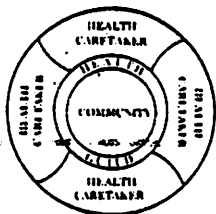
- NEW CONSTRUCTION

- NEW INDUSTRIES

PLAYS

SONG & DANCE

(INVOLVE ALL AGES)



HEALTH EDUCATION  
FOR  
EVERYONE

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