

PART THREE

LEARNING TO USE THE BOOK, WHERE THERE IS NO DOCTOR

A book on basic health care is a tool for sharing ideas and knowledge. If clearly and simply written, it can be used by anyone who knows how to read. However, if persons are given suggestions and guided practice in use of the book, it will usually serve them better.

In Part Three of this book, we give many suggestions for helping people learn to use the village health care handbook, *Where There Is No Doctor (WTND)*. But many of these suggestions apply to any health or 'how-to-do-it' manual.

'Book learning' for health workers has two objectives:

- To help health workers themselves learn to use their books effectively.
- To help health workers learn how to help others use the book, or to use the ideas and information it contains.

Instruction in 'use of the book' can take place in many ways. It may be a key part of a 2- or 3-month health worker training course. It may take place in weekly meetings of village mothers, led by a health worker. Or it may be only a brief explanation given by a health worker to a folk healer or midwife from a distant village.



We know an old folk healer who cannot read. But she has her 8-year-old granddaughter read to her from *WTND* while she studies the pictures.

LEARNING TO USE BOOKS RATHER THAN RELYING ON MEMORY:



If training helps health workers learn to use reference books effectively, they will continue to learn and study long after the course is over.

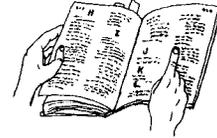
A community health worker needs to know how to do many things. A wide range of information and skills are needed in his work. But he cannot be expected to keep all the necessary information in his head. Therefore . . .

Training should not focus on memorizing a lot of information, but on LEARNING HOW TO LOOK THINGS UP.

Combining literacy training with health skills: Because being able to look things up is such an important skill, some programs—especially in Africa—link learning to read with practice in solving health problems. Student health workers who can already read and write help teach those who are learning. Thus, a book like *Where There Is No Doctor* in the local language helps people learn health skills and literacy skills at the same time. (For more ideas on combining literacy training with health skills and critical awareness, see Chapter 26.)

SCHEDULED CLASSES ON ‘USE OF THE BOOK’ DURING HEALTH WORKER TRAINING

In the 2-month training course in Ajoya, Mexico, ‘Use of the Book’ is a regular class that takes place twice a week throughout the course. The first classes help students become familiar with what is in each chapter and each of the special sections of the book. They practice looking things up using the INDEX, list of CONTENTS, charts, and page references. Later classes focus on using the book to help solve problems acted out in role plays.



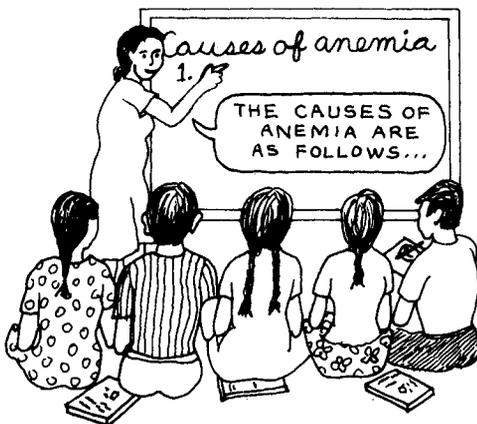
As much as possible, these classes on ‘Use of the Book’ are coordinated with the other classes, clinical practice, and community visits. They provide related study, lifelike practice, and review. Scheduling is kept flexible so that if students encounter an important problem in clinical practice or community activities, they can explore it further in their next ‘Use of the Book’ class.

Building ‘Use of the Book’ into other classes and activities

It is important that learning to use the book not be limited to specific classes. Practice in looking things up and using the book as a tool needs to be built into many areas of study and learning. This means that . . .

During any class, if you have a choice between telling students something or having them find and read it out loud from their books, have them read it from their books!

LESS APPROPRIATE: TELLING



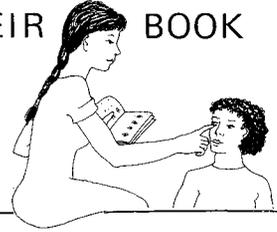
MORE APPROPRIATE: FINDING OUT

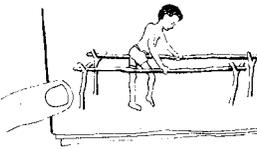
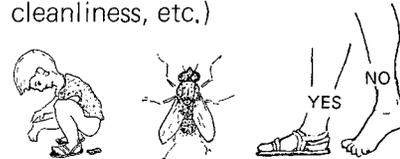
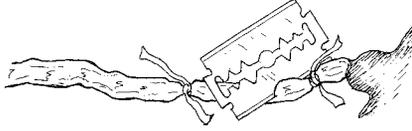


Do not tell the students things that they can learn to look up for themselves.

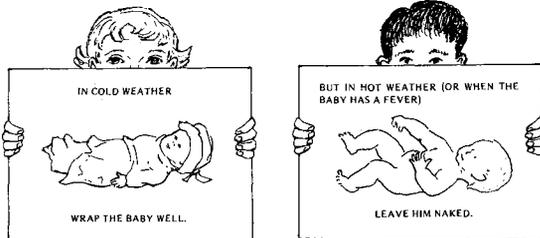
WAYS HEALTH WORKERS CAN USE THEIR BOOK

1. As a **reference book** for diagnosing, treating, and giving advice on specific health problems.
2. As a **tool for teaching** any of the following:



<ul style="list-style-type: none"> families of sick people (reading sections that relate to the illness) 	<ul style="list-style-type: none"> persons who cannot read (reading to them; discussing pictures with them)  <p>“You can make it like this.”</p>
<ul style="list-style-type: none"> children (games and discussions about the guidelines for cleanliness, etc.) 	<ul style="list-style-type: none"> mothers (about children’s growth and nutrition, women’s health, etc.)  <p>BREAST IS BEST</p>
<ul style="list-style-type: none"> midwives (sterile technique, etc.) 	<ul style="list-style-type: none"> farmers (experimenting with different methods) 
<ul style="list-style-type: none"> shopkeepers and others who sell medicines (see <i>WTND</i>, p. 338) 	 <p>REMEMBER—MEDICINES CAN KILL</p>

3. As an **idea book** for making teaching materials such as posters.



4. As a **source of information** for conducting health activities such as . . .

- under-fives clinics
- check-ups for pregnant women
- nutrition programs
- public health measures



5. As a **guide** for discussing and exploring traditional forms of healing.



SHARING THE BOOK:

EXAMPLES FROM DIFFERENT COUNTRIES

By looking things up in her book together with people, a health worker takes some of the mystery out of medicine. This puts the health worker and other people on equal terms, and gives people more control over their own health.



A health worker in Ajoya, Mexico shows two children the pictures of worms in *WTND* and asks them what kind they have.



Pictures from *WTND* have been used for posters in the CHILD-to-child program (see Ch. 24). Here a child shows the importance of keeping poisons out of reach.



Here health workers in the Philippines use *WTND* to learn about fractures, bleeding, and shock in a role play.



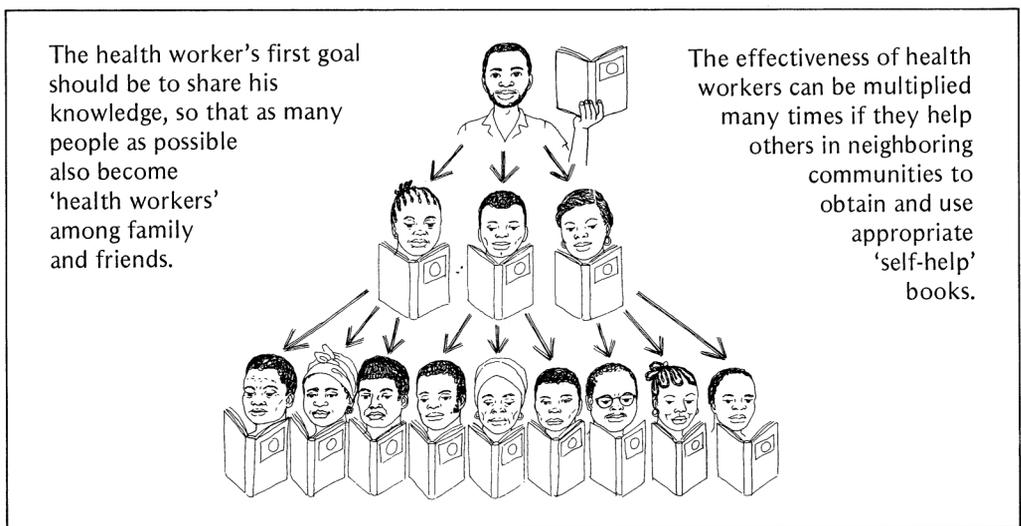
A health worker from Guatemala uses his book in preparing a poster about 'oral rehydration'. A group of curious school children look on. Together they learn about health problems, drawing, teaching, and sharing of ideas.



HELPING OTHERS LEARN TO USE THE BOOK

Where There Is No Doctor was not originally written for trained health workers, but for villagers who need information to care for the health of their families and neighbors. In areas the book has reached, it has served this purpose fairly well. Time and again, we have found that in villages where only one or two persons know how to read, these persons have become important health resources for the village. Their neighbors ask them to look in the book for information about medicines, health problems, and other concerns.

Seeing how often *Where There Is No Doctor* was used as a manual for health workers, after several years we added the introductory section called "Words to the Village Health Worker." However, we still feel that **the book is a tool for anyone who can read and is interested in health.**



Giving brief instructions on how to use the book

Health workers can help others use *Where There Is No Doctor* more effectively if they explain certain features of the book to them. They can point out the different reference sections—the Contents, Index, and Green Pages—and help persons to practice looking up topics that interest them. Even 10 or 15 minutes of such practice can be a big help. Sometimes a health worker can bring small groups together to learn about using the book.

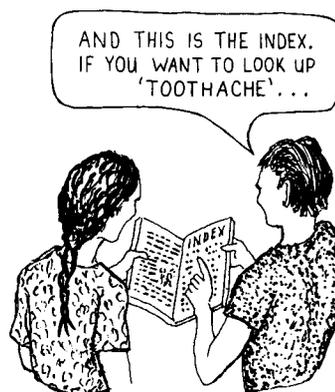
Here we give 12 suggestions for helping others learn how to use *Where There Is No Doctor*. Many of these will be developed more fully in the next 2 chapters.

1. Show the person the inside of the front cover, and read the suggestions for HOW TO USE THIS BOOK.
2. Next, review the CONTENTS briefly, so the person gets an idea of what is in each chapter. Explain that she can look in the Contents for the chapter most likely to include the topic she wants. Then she can read the subheadings under the chapter title to see what page to turn to. Help her to practice doing this.

3. Now turn to the INDEX (yellow pages). Show how the subjects are listed in alphabetical order.

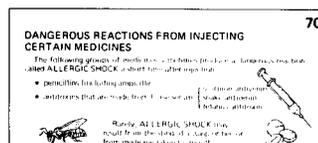
Practice: Ask the person to name a health problem that concerns her. Suppose she says “toothache.” First have her flip through the book looking for pictures of teeth. (This is the way most people look for things first.) Next, show her how to find “Toothache” in the CONTENTS, then in the INDEX.

Now have her pick another subject, such as snakebite. Let her try to find it herself, first by flipping through the book, then by using the CONTENTS and the INDEX. Have her turn to the right page and read what it says.



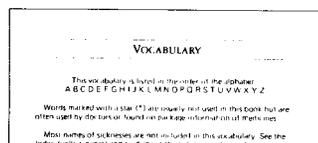
4. **Page references.** Point out that throughout the book there are notes in parentheses () saying “(see p. ____)” or simply “(p. ____).” These give the numbers of pages that have related information. On the second page about snakebite, for example, there is a page reference for precautions to prevent allergic shock (p. 70).

Practice: Have the person look up some page references and read the relevant parts.



5. Show the person the VOCABULARY (*WTND*, p. 419). Explain that this is an alphabetical list of words and their meanings. Then flip through the book until you spot some words in *italics*— for example, *bacteria* on page 55, and *respiratory* on page 57.

Practice: Have the person look up these words in the vocabulary.



6. Show the person how to look up specific medicines in the GREEN PAGES, using the List of Medicines on page 341 and the Index of Medicines on page 344.



Practice: Have her look up a common medicine, such as aspirin, and read about it. Point out the importance of correct use, correct dosage, and always reading and following the precautions.

7. **Finding out about a health problem when you are not sure just what it is.**

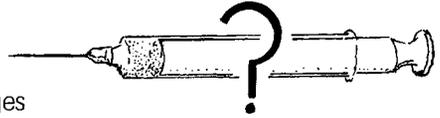
Have the person look in the book under the general kind of problem (skin problem, eye problem, old person’s problem, etc.). Or look under the most important symptom or sign—for example, ‘cough’ or ‘fever’.

Point out that in many parts of the book there are guides to help you decide which illness a person probably has. For example:

- Guide to Identification of Skin Problems, p. 196
- Different Illnesses that Cause Fever, p. 26
- Different Kinds of Cough, p. 168

For a more complete list of these guides and a discussion of how to use them, see Chapter 21 of this book.

8. **Avoiding mistakes.** Point out the first 8 chapters of *Where There Is No Doctor*, being sure to show the person Chapter 2, "Sicknesses that are Often Confused," and Chapter 6, "Right and Wrong Uses of Medicines." Look especially at the parts that deal with problems and beliefs common in your area. You may want to mark these pages in the book, so the person can read them later. For example, if people in your area tend to overuse and misuse injections, mark the first 6 pages of Chapter 9 (pages 65-70) for special reading.



9. If the person will be providing care for sick or injured persons, encourage her to carefully study Chapter 3, "How to Examine a Sick Person," and Chapter 4, "How to Take Care of a Sick Person." If there is time, teach the person some of the basic aspects of history taking and physical examination.
10. **Prevention.** People's first interest in a book like *Where There Is No Doctor* usually has to do with curative medicine. But this interest can serve as a doorway to learning about prevention. Point out how, in discussing nearly any health problem, advice about prevention can be included. Look, for example, at Scabies on p. 199. Stress the importance of preventive advice.

Also encourage the person to read Chapters 11 and 12, on "Nutrition" and "Prevention." Consider putting markers at pages describing preventive action that is especially needed in your area. For example, if blindness due to lack of vitamin A is common in your community, mark page 226. Encourage the person to follow the advice on that page, and to help others to do the same.



11. Point out the chapters and sections that are of special importance to the reader. For example, if she is a mother, show her the chapter on children's health problems. Ask if any of her children has an illness at the moment. See if she can find it in the book. Have her read about it. Then discuss it with her to make sure she understands the information.
12. **Knowing when to seek help.** In making suggestions on how to use the book, emphasize that the person needs to recognize her limitations. Help her to realize that sometimes she will need to seek help from a health worker or doctor. Show her the following pages:
- p. 42, Signs of Dangerous Illness
 - p. 159, When to Seek Medical Help in Cases of Diarrhea
 - p. 256, Signs of Special Risk that Make It Important that a Doctor or Skilled Midwife Attend the Birth—if Possible in a Hospital



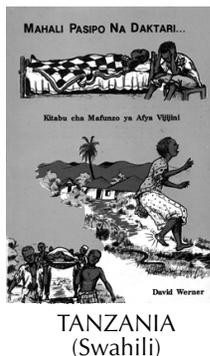
By focusing on the 12 points presented here, a person can gain some understanding of how to use the book in as little as 2 or 3 hours. However, these guidelines are only a beginning. There may be other parts of the book that are especially useful for your area. And a great deal of practice is needed to use the book really well. The next 2 chapters suggest ways of providing such practice in a training course.

ADAPTING *WHERE THERE IS NO DOCTOR* TO THE LOCAL SITUATION

The original Spanish edition of ***Where There Is No Doctor*** was written specifically for use in the mountain area of Western Mexico. In the English version, we tried to make the book so it could be used in many different countries. But clearly, a book that can be used in many areas will not be completely appropriate to any single place. Therefore, some of the information and ideas in the book will apply to your area. Others will not. And some basic information will certainly be missing.

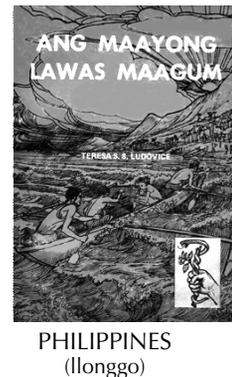
Health workers should recognize the limitations of the book and never use it as their 'bible'. (Unfortunately, this has happened in some health programs.)

Ideally, ***Where There Is No Doctor*** (or any reference book) should be adapted or rewritten for each area. This has already been done in some parts of the world.



The editions in Senegal and Tanzania have been adapted and the pictures redone to fit the local people and customs.

In the Philippines, a completely new book has been written, using ideas from ***Where There Is No Doctor***.



Unfortunately, not every area will have the time and money to write their own villager's health care handbook, or to adapt the whole of ***Where There Is No Doctor***. Where complete adaptations are not possible, we suggest that training programs produce sheets or pamphlets to be used along with the book. These can cover additional information that relates to local needs, problems, and customs. Such information sheets might include:

- Local names of illnesses, and ways of looking at sickness and health.
- Examples of traditional forms of healing: beneficial and harmful.
- Names (including brand names and comparative prices) of medicines that are available locally. Or at least have students write this information into the Green Pages of their books.
- A list of commonly misused medicines and mistaken medical practices in your area, with explanations and warnings.
- Information about the diagnosis, treatment, and prevention of health problems that are important in your area but are not included in ***Where There Is No Doctor***.

Discuss with your students which parts of their books are appropriate to your area and which are not. Encourage them to question the truth or usefulness of anything they read.

Using the Contents, Index, Page References, and Vocabulary

Note: Some instructors may feel that certain things explained in this chapter are very obvious. They may think that to teach them would be a waste of time, or even an insult to the students. But skills in using an index and looking up page references should not be taken for granted. **If you allow time for explaining and helping students master these basic skills, it can make a big difference in their problem-solving abilities.**

LEARNING HOW TO LOOK THINGS UP

Persons who have not done much reading may find it difficult to use an information book effectively. In addition to reading slowly, they may also have difficulty finding what they are looking for. Sometimes they try to find things by flipping through the book, looking at the pictures. But this can be slow, and they may miss important information.

Early in the training course, **take time to show students how to use their books.** Instructors and more experienced students can guide others in practicing how to look things up.* The following are some points you may want to explain.

Page numbering

The pages are numbered in order: 1,2,3,4,5,6,7,8,9,10 . . . 20 . . . 30 . . . 100 . . . 200, and so on. So if you want to find page 168 to read about 'Cough', do not start at the beginning of the book and go through it page by page. Instead . . .

Open the book somewhere in the middle—
for instance to pages 198 and 199.



That is too far forward, so turn back
some, say to page 184 and then to 166.



Now you are very close. Turn the page to 168.



*It is a good idea, in the first days of the course, to check each person's reading ability, knowledge of alphabetical order, and basic arithmetic skills. Provide special practice for those who need it. But be sure these students are not made to feel ashamed because they have had less schooling. Include them in all regular classes and help them feel free to participate.

Alphabetical lists

Where There Is No Doctor has several reference sections, or lists where you can look things up. Three of these are arranged in alphabetical order:

- The **INDEX** (the yellow pages at the end of the book)—where you can look up the page or pages with information about almost anything in the book.
- The **INDEX OF MEDICINES** in the GREEN PAGES—to help you find the page with the uses, dosage, and precautions for the medicine you want to know about.
- The **VOCABULARY**—where you can look up the meanings of words written in *italics* in the main part of the book.

In each of these lists, the words are arranged so that their first letters are in the order of the alphabet: A,B,C,D,E, and so on until Z.

Suppose you want to look up 'Vomiting'. Depending on whether you are interested in **medicines**, a **definition**, or a **full discussion** on vomiting, you can look it up in the GREEN PAGES, the VOCABULARY, or the INDEX.

First, **look for the large dark letters** in the center of each column. **V** will be near the end of the lists because it is near the end of the alphabet.

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INDEX OF MEDICINES IN THE GREEN PAGES

T

<i>Tagamet</i> (cimetidine)	382
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Tetracycline	356
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Oxytetracycline	356
Tetracycline HCl	356
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Thiabendazole	375
Thiacetazone	363
<i>Tinactin</i> (tolnaftate)	372
Tolnaftate	372
<i>Trinordiol</i> (birth control pills)	394
<i>Trinovum</i> (birth control pills)	394
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<i>Valium</i> (diazepam)	390
<i>Vansil</i> (oxamnicuine)	377
<i>Vaseline</i> (petroleum jelly)	371
<i>Vermax</i> (mebendazole)	374
<i>Vibramycin</i> (doxycycline)	356
Vinegar	372
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VOCABULARY

V

Vaccinations See *Immunization*.

Vagina The tube or canal that goes from the opening of the woman's sex organs to the entrance of her womb.

Vaginal Of or relating to the vagina.

Varicose veins Abnormally swollen veins, often lumpy and winding, usually on the legs of older people, pregnant women, and women who have had a lot of children.

Vaseline See *Petroleum jelly*.

Venereal disease A disease spread by sexual contact. Now called 'sexually transmitted disease' or 'STD'.

Vessels Tubes. Blood vessels are the veins and arteries that carry the blood through the body.

Virus Germs smaller than bacteria, which cause some infectious (easily spread) diseases.

Vitamins Protective foods that our bodies need to work properly.

Vomiting Throwing up the contents out of the stomach through the mouth.

W

Welts Lumps or ridges raised on the body, usually caused by a blow or an allergy (hives).

Womb The sac inside a woman's belly where a baby is made. The uterus.

X

Xerophthalmia Abnormal dryness of the eye due to lack of vitamin A.

If you find **T** or **U**, look further ahead for **V**.

If you find **W** or **X**, go back to find **V**.

After you find **V**, start looking for '**Vomiting**'—after '**Vaccinations**' and '**Vitamins**'.

Using the INDEX (yellow pages) of *Where There Is No Doctor*

When you find a word in the index followed by several page numbers, the **dark number** indicates the page that has the most information. For example,

page **147** for 'Vaccinations',
 pages **241-242** for 'Vaginal discharge',
 and
 page **175** under 'Varicose veins'.

What others diseases do you find in this list?

If you find several words listed in lighter letters under the main word, these are subheadings related to the main topic or idea. For example, 'with diarrhea' refers to '**Vomiting** with diarrhea'.

If you do not find the subject you want in the INDEX, try looking for it under another name. For example, you might look first for 'Upset stomach'. If that is not listed, look up other words that mean the same thing: 'Puking', 'Throwing up', or 'Vomiting'. Usually the most widely known word is listed.

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V	
Vaccinations , 19, 147 , 180, 250, 296, 321, 337, 405	
Vagina , 233 , 428	
infections of, 241-242, 370	
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(Also see Varicose veins)	
Venereal diseases (VD) (See Sexually transmitted disease)	
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with blood (ulcer), 128	
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Practice at finding things in alphabetical lists will make it easier for health workers to use the INDEX and VOCABULARY.

I NEVER LEARNED THE LETTERS IN ALPHABETICAL ORDER BECAUSE I DIDN'T SEE ANY USE FOR IT.

ME NEITHER. BUT NOW THAT I SEE THE USE, I'M GOING TO LEARN IT!



Finding what you are looking for on a page

After you have looked something up in the INDEX and have turned to the page with the topic you want, take a moment to **look over the whole page**. Do not just start reading from the top. First notice what part of the page has the information you are looking for.

For example: Suppose some neighbors have a baby who is cross-eyed, and you want to discuss with them what can be done to correct the problem. You look in the INDEX (or the CONTENTS) and find that the main reference to cross-eyes is page 223. But **where on page 223 should you read?** Here are some clues:

Look at the words in **BIG, DARK LETTERS**.

To save time, start reading here.

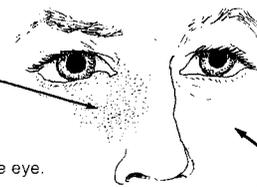
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INFECTION OF THE TEAR SAC (DACRYOCYSTITIS)

Signs:
Redness, pain, and swelling beneath the eye, next to the nose. The eye waters a lot. A drop of pus may appear in the corner of the eye when the swelling is gently pressed.

Treatment:

- ◆ Apply hot compresses.
- ◆ Put antibiotic eye drops or ointment in the eye.
- ◆ Take penicillin (p. 351).



TROUBLE SEEING CLEARLY

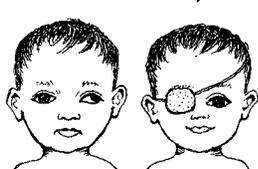
Children who have trouble seeing clearly or who get headaches or eye pain when they read may need glasses. Have their eyes examined.

In older persons, it is normal that, with passing years, it becomes more difficult to see close things clearly. Reading glasses often help. Pick glasses that let you see clearly about 40 cm. (15 inches) away from your eyes. If glasses do not help, see an eye doctor.



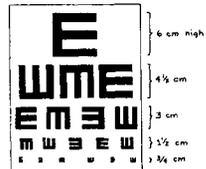
CROSS-EYES AND A WANDERING OR 'LAZY' EYE (STRABISMUS, 'SQUINT')

If the eye sometimes wanders like this, but at other times looks ahead normally, usually you need not worry. The eye will grow straighter in time. But if the eye is always turned the wrong way, and if the child is not treated at a very early age, she may never see well with that eye. See an eye doctor as soon as possible to find out if patching of the good eye, surgery, or special glasses might help.



Surgery done at a later age can usually straighten the eye and improve the child's appearance, but it will not help the weak eye see better.

IMPORTANT: The eyesight of every child should be checked as early as possible (best around 4 years). You can use an 'E' chart (see *Helping Health Workers Learn*, p. 24-13). Test each eye separately to discover any problem that affects only one eye. If sight is poor in one or both eyes, see an eye doctor.



And look at the drawings.

When you get to the bottom of the page, be sure to check the next page to see if the information continues.

Looking up page references

Once you have read about the topic you looked up, you may want to turn also to other pages mentioned in the text. These are often referred to in parentheses (inside curved lines like these)—for example, “(see p. 140),” or simply “(p. 125).” On these pages you will find additional information, such as:

- another disease that may be a cause of the problem you are interested in
- danger signs you should watch for
- how the same disease can affect another part of the body or another person
- medicines recommended for treatment, their dosage and precautions
- medicines recommended for treatment, their dosage and precautions
- how to prevent the problem you are reading about

Page 307 of *Where There Is No Doctor* refers you to various causes of anemia in children.

Anemia

Common signs in children:

- pale, especially inside eyelids, gums, and fingernails
- weak, tires easily
- likes to eat dirt

Common causes:

- diet poor in iron (p. 124)
- chronic gut infections (p. 145)
- hookworm (p. 142)
- malaria (p. 186)



124 SPECIAL DIETS FOR SPECIFIC HEALTH PROBLEMS

ANEMIA

A person with anemia has less blood. This happens when blood is lost or destroyed faster than the body can replace it. Blood from large wounds (bleeding ulcers or ulcers) can drain away. The body makes what destroys red blood cells. Not eating enough foods rich in iron can cause anemia or make it worse.

Women can become anemic from blood loss during monthly bleeding (menstrual periods) or children if they do not eat the foods their bodies need. Pregnant women are at risk of becoming severely anemic because they need to make extra blood for their growing babies.

In other anemia can come from not eating foods rich in iron. It can also come from not eating to give some foods in addition to breast milk after the baby is 6 months old. Common causes of severe anemia in children are hookworm infection (see p. 142), chronic diarrhea, and dysentery.

The signs of anemia are:

- pale or transparent skin
- pale inside the mouth
- pale inside the eyelids
- pale inside the fingernails
- pale inside the gums
- pale inside the soles of the feet
- weakness and fatigue
- If the anemia is very severe, hair will fall out or become thin
- The child may be very tired
- Children and women who fail to eat can be severely anemic

Treatment and prevention of anemia:

- **Eat foods rich in iron:** Meat, fish, and chicken are high in iron. Liver is especially high. Dark green leafy vegetables, beans, peas, and lentils also have some iron. It also helps to cook in iron pots (see p. 117). To help the body absorb more iron, eat tea, vegetables and fruit with meals and avoid drinking coffee and tea with food.
- If the anemia is moderate or severe, the person should take iron (ferrous sulfate pills, p. 350). This is especially important for pregnant women who are anemic. If the anemia is severe, the person should take iron (ferrous sulfate pills) plus vitamin B12. As a general rule, iron should be given by mouth, not injected, because iron injections can be dangerous and are no better than pills.
- If the anemia is caused by hookworm and trichuriasis (with stool), hookworm, malaria, or another disease, this should also be treated.
- If the anemia is severe or does not get better, see medical help. This is especially important for a pregnant woman.

Many women are anemic. Anemic women hurt a great deal in miscarriage and/or dangerous bleeding in childbirth. It is very important for women as well as each of the foods high in iron as possible, especially during pregnancy. Allowing 2 to 3 years between pregnancies can let the woman regain strength and make new blood (see Chapter 20).

186 MALARIA

Malaria is an infection of the blood that causes chills and high fever. Malaria is spread by mosquitoes. The mosquito sucks up the malaria parasites in the blood of an infected person and injects them into the next person it bites.

Signs of malaria:

- The typical attack strikes every 2 or 3 days and lasts several hours. It has 3 stages:
 1. It begins with chills and often sweats. The person is usually very hot and has a fever that lasts 10 to 15 minutes or an hour.
 2. Chills are followed by a high fever. The person is usually very hot and has a fever that lasts 10 to 15 minutes or an hour.
 3. Finally, the person feels better, but is still weak and tired. The fever has almost gone.

Prevention: The same as for roundworm.

Hookworm: 1 cm long. Color red.

How hookworms are spread:

1. The baby hookworms enter a woman's bare feet. This can cause itching.
2. In a few days they reach the lungs through the blood stream. They may cause a dry cough (only with blood).
3. The person coughs up the young worms and spews them.
4. A few days later the person may have a rash on the inside of the mouth.
5. The hookworms start to mature in the wall of the gut. Many some can cause weakness and severe anemia.
6. The hookworms lay eggs in the stool.

Hookworm infection can be one of the most damaging diseases of childhood. Any child who is anemic, very pale, or says they may have hookworms: If possible, the stools should be analyzed.

Treatment: Use thiabendazole, mebendazole, trichlorfon/trichloroethylene (T.C.E.), or ivermectin. For dosage and precautions, see page 362 and 364. Treat patients by eating foods rich in iron and if necessary by taking iron pills (p. 125).

Prevent hookworm, build up iron levels. Do not let children go barefoot.

142 Whipworm (Trichuris, Trichocephalus)

3 to 5 cm long. Color pink or gray.

This worm, like the roundworm, is passed from the feces of one person to the mouth of another person. Usually this worm does little harm. But in some cases diarrhea in children is occasionally caused part of the intestine to come out of the anal passage of the rectum.

Prevention: If the person coughs a problem, give thiabendazole or mebendazole. For dosage, see page 362 and 364. For protection of the rectum, turn the child upside down and pour cool water on the anal area. This should make it pull back in.

Hookworm: 1 cm long. Color red.

Hookworms cannot usually be seen in the feces. A sand particle is needed to prove that they are there.

How hookworms are spread:

1. The baby hookworms enter a woman's bare feet. This can cause itching.
2. In a few days they reach the lungs through the blood stream. They may cause a dry cough (only with blood).
3. The person coughs up the young worms and spews them.
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Prevent hookworm, build up iron levels. Do not let children go barefoot.

145

Typical anemic dysentery consists of:

- diarrhea that comes and goes—sometimes alternating with constipation
- changes in the belly and a need to have frequent bowel movements, even when little or nothing—or just mucus—comes out
- many times the quality and volume of stools with lots of mucus, sometimes streaked with blood
- in severe cases, much blood, the person may be very weak and ill
- usually there is no fever

Dysentery with blood may be caused by either an amoeba or bacteria. However, bacterial dysentery (Shigellosis) begins more suddenly, the stools are more watery, and there is almost always fever (p. 186). As a general rule:

Diarrhea + blood = severe infectious dysentery (Shigellosis)
Diarrhea + blood = no fever = anemia

Occasionally bloody diarrhea has other causes. To be sure of the cause, a stool analysis may be necessary.

Sometimes amoeba get into the liver and form an abscess or pocket of pus. This causes tenderness or pain in the right upper belly. Pain may extend into the right chest and is worse when the person walks. Compare this with giardiasis (see p. 332), trichuriasis (p. 142), and trichinosis (p. 228). If the person walks, three things help to cough up a few: (a) get an antibiotic (see p. 358), (b) get iron (p. 125), (c) get a stool analysis (see p. 357).

Treatment:

- If possible give medical help and a stool analysis.
- If no gut infection with amoeba can be treated with thiabendazole, alone or with mebendazole (see p. 358), length of treatment and precautions, see p. 353 and 359.
- For severe dysentery or anemic diarrhea, use thiabendazole together with mebendazole (for dosage, see p. 358). If mebendazole is not available, use thiabendazole (see p. 357).

Prevention: Make and use latrines, protect the source of drinking water, and follow the guidelines of cleanliness. Eating well and avoiding fatigue and disturbances are also important in preventing anemic dysentery.

Giardiasis: The parasite, like the amoeba, is a microscopic animal that lives in the gut and is a common cause of diarrhea, especially in children. The diarrhea may be chronic or intermittent (come and go).

Amoebae: Amoebae who live in the gut do not cause diarrhea, but they do cause (flat or bloody) stools with mucus and blood. Amoebae who live in the gut do not cause diarrhea, but they do cause (flat or bloody) stools with mucus and blood. Amoebae who live in the gut do not cause diarrhea, but they do cause (flat or bloody) stools with mucus and blood.

Cardiac infections often clear up by themselves. Good nutrition helps. Severe cases are best treated with medication (for dosage, see p. 359). Quinidine (see p. 358) is a disease but does not work as well.

Also point out how arrows are used in the book to join writing with pictures (as on page 124 above) or to show which direction to read (page 142 above). Check students' ability to follow the arrows.

Page 159 of *Where There Is No Doctor* refers you to several pages with more information about . . .

special treatment if vomiting is a problem

VOMITING 161

Many people, especially children, have an occasional stomach upset with vomiting. Often no cause can be found. There may be mild stomach or gut ache or fever. This kind of simple vomiting usually is not serious and clears up by itself.

Vomiting is one of the signs of many different problems, some minor and some quite serious, so it is important to examine the person carefully. Vomiting often comes from a problem in the stomach or guts, such as an infection (see diarrhea, p. 153), poisoning from spoiled food (p. 129) or "acute abdomen" (for example, appendicitis or something blocking the gut, p. 94). Also, almost any sickness with high fever or severe pain may cause vomiting, especially malaria (p. 183), hepatitis (p. 172), meningitis (p. 309), malaria (p. 209), malaria (p. 199), urinary infection (p. 234), gallbladder pain (p. 329) or migraine headache (p. 162).

Danger signs with vomiting—seek medical help quickly!

- dehydration that increases and that you cannot correct (p. 159)
- severe vomiting that lasts more than 24 hours
- violent vomiting especially if vomit is dark green, brown, or smells like feces (sign of obstruction, p. 94)
- constant pain in the gut, especially if the person cannot tolerate food or if you cannot hear gurgles when you put your ear to the belly (see acute abdomen—obstruction, appendicitis, p. 94)
- vomiting of blood (ulcer, p. 128, cirrhosis, p. 328)

To help control simple vomiting:

- Eat nothing while vomiting is severe.
- Sip a soda drink or ginger ale. Some herbal tea, like chamomile, may also help.
- For dehydration give small frequent sips of oral, hot, or Rehydration Drink (p. 152)
- If vomiting does not stop soon, use a vomit control medicine like promethazine (p. 371), diphenhydramine (p. 371) or phenothiazine (p. 373)

Most of these come in pills, syrups, injections, and suppositories (soft pills you put up the anus). Tablets or syrup can also be put up the anus. Grind up the tablet in a little water. Put it in with an eventa set or syringe without a needle.

When taken by mouth, the medicine should be swallowed with very little water and nothing else should be swallowed for 30 minutes. Never give more than the recommended dose. Do not give a second dose until dehydration has been corrected and the person has begun to urinate. If severe vomiting and diarrhea make medication by mouth or anus impossible, give an injection of 1 of these vomit control medicines. Promethazine may work best. Take care not to give too much.



159

Care of Babies with Diarrhea

Diarrhea is especially dangerous in babies and small children. Often no medicine is needed, but special care must be taken because a baby can die very quickly of dehydration.

GIVE HIM BREAST MILK



♦ **Continue breast feeding** and also give sips of **Rehydration Drink**.

♦ If vomiting is a problem, give breast milk often, but only a little at a time. Also give Rehydration Drink in small sips every 5 to 10 minutes (see Vomiting, p. 161).

♦ If there is no breast milk, try giving frequent small feedings of some other milk or milk substitute (like milk made from soybeans) **mixed to half normal strength with boiled water**. If milk seems to make the diarrhea worse, give some other protein (mashed chicken, eggs, lean meat, or skinned mashed beans, mixed with sugar or well-cooked rice or another carbohydrate, and boiled water)

AND ALSO REHYDRATION DRINK



♦ If the child is younger than 1 month, try to find a health worker before giving any medicine. If there is no health worker and the child is very sick, give him an 'infant syrup' that contains ampicillin; half a teaspoon 4 times daily (see p. 353). It is better not to use other antibiotics.

When to Seek Medical Help in Cases of Diarrhea

Diarrhea and dysentery can be very dangerous—especially in small children. **In the following situations you should get medical help:**

- if diarrhea lasts more than 4 days and is not getting better—or more than 1 day in a small child with severe diarrhea
- if the person shows signs of dehydration and is getting worse
- if the child vomits everything he drinks, or drinks nothing, or if frequent vomiting continues for more than 3 hours after beginning Rehydration Drink
- if the child begins to have fits, or if the feet and face swell
- if the person was very sick, weak, or malnourished before the diarrhea began (especially a little child or a very old person)
- if there is much blood in the stools. This can be dangerous even if there is only very little diarrhea (see gut obstruction, p. 94).

353

Dosage of procaine penicillin for moderately severe infections:

Give 1 injection a day

With each injection give

- adults: 600,000 to 1,200,000 IU
- children age 6 to 12: 300,000 IU
- children age 3 to 7: 200,000 IU
- children under 3: 100,000 IU

Injection tablets. DO NOT USE unless no other penicillin or ampicillin is available (see ampicillin, p. 350)

For very severe infections, give twice the above dose. However, it is better to use a different penicillin.

The dosage for procaine penicillin combined with streptomycin is the same as for procaine penicillin alone.

For treatment of gonorrhea and syphilis, procaine penicillin is best. Very high doses are needed. For syphilis, see pages 217 and 228.

Sensitive penicillin (penicillin G)

Give 1 injection every 4 days for mild infections. 1 injection every 6 hours.

Oral comes in tablets of 1,200,000 or 400,000 IU

Dosage of sensitive penicillin— for mild to moderately severe infections:

Give 1 injection every 4 days for mild infections. 1 injection every 6 hours.

Oral comes in tablets of 1,200,000 IU children age 6 to 12: 300,000 IU children age 3 to 6: 200,000 IU children under 3 years: 100,000 IU

To prevent return infection in persons with heart and rheumatic fever, give twice the above dose once every 2 or 4 weeks (see p. 310)

AMPICILLIN: A WIDE-RANGE BROAD SPECTRUM PENICILLIN

Ampicillin

Oral comes in tablets.

125 or 250 mg TAB	price	for
capsule, 250 mg	price	for
injection, 500 mg	price	for

Give 4 doses a day, once every 6 hours

By injection, for severe infections—50 to 100 mg (100 to 200 mg) every 6 hours for 7 to 10 days

Give 4 doses a day, once every 6 hours

94

Obstructed Gut

An acute abdomen may be caused by something that blocks or "obstructs" a part of the gut, so that food and stools cannot pass. More common causes are:

- a ball or knot of roundworms (Ascariis, p. 140)
- a loop of gut that is pinched a hernia (p. 177)
- a part of the gut that slips inside the part below it (intussusception)

Almost any kind of acute abdomen may show some signs of obstruction. Because it hurts the damaged gut to move, it stops moving.

Signs of an obstructed gut:

- Slowly, worse pain in the belly
- The child is chilly as well as hot, and very tender. It hurts more when you touch it. He tries to protect his belly and keeps his legs flexed up. His belly is often silent. (When you put your ear to it, you hear no sound of normal gurgles.)
- Sudden vomiting with green foam. The vomit may smell out a fecal or putrid. If they have green bile in it or are hot and look like they are dying.



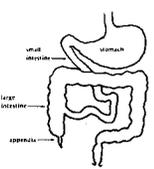
He is usually constipated (little or no bowel movements). If there is diarrhea, it is only a little bit. Sometimes all that comes out is some bloody mucus.

Get this person to a hospital at once. His life is in danger and surgery may be needed.

Appendicitis, Peritonitis

These dangerous conditions often require surgery. Seek medical help fast.

Appendicitis is an infection of the appendix, a finger shaped sac attached to the large intestine in the lower right hand part of the belly. An infected appendix sometimes bursts open, causing peritonitis.



Peritonitis is an acute, serious infection of the lining of the cavity or bag that holds the gut. It results when the appendix or another part of the gut bursts or is torn.

Looking up related information— even when page references are not given

Usually a book gives only the most important page references, to save you time in looking things up. But sometimes you will want to look up related information, or something you are unsure about—even though no page reference is given.

Read this information about measles from pages 311 and 312 of *Where There Is No Doctor*:

Measles

This severe **virus** infection is **especially dangerous in children who are poorly nourished** or have **tuberculosis**. Ten days after being near a person with measles, it begins with signs of a cold—fever, runny nose, red sore eyes, and cough.

The child becomes increasingly ill. The mouth may become very sore and he may develop diarrhea.

After 2 or 3 days a few tiny white spots like salt grains appear in the mouth. A day or 2 later the rash appears—first behind the ears and on the neck, then on the face and body, and last on the arms and legs. After the rash appears, the child usually begins to get better. The rash lasts about 5 days. Sometimes there are scattered black spots caused by bleeding into the skin ('black measles'). This means the attack is very severe. Get medical help.

Treatment:

- The child should stay in bed, drink lots of liquids, and be given **nutritious** food. If she cannot swallow solid food, give her **liquids** like soup. If a baby cannot breast feed, give breast milk in a spoon. (see p. 120)
- If possible, give vitamin A to prevent eye damage (p. 392).
- For fever and discomfort, give **acetaminophen** (or aspirin).
- If earache develops, give an **antibiotic** (p. 351).
- If signs of **pneumonia, meningitis, or severe pain in the ear or stomach** develop, get medical help.
- If the child has diarrhea, give Rehydration Drink (p. 152).

Prevention of measles:

Children with measles should keep far away from other children, even from brothers and sisters. Especially try to protect children who are poorly nourished or who have tuberculosis or other chronic illnesses. Children from other families should not go into a house where there is measles. If children in a family where there is measles have not yet had measles themselves, they should not go to school or into stores or other public places for 10 days.

To prevent measles from killing children, make sure all children are well nourished. Have your children **vaccinated** against measles when they are 8 to 14 months of age.



Do you know what a *virus* is? If not, look it up in the VOCABULARY.

What foods are *nutritious*? Look in the INDEX, the VOCABULARY, or Chapter 11 on Nutrition.

This is an exact page reference. Turn to page 120.

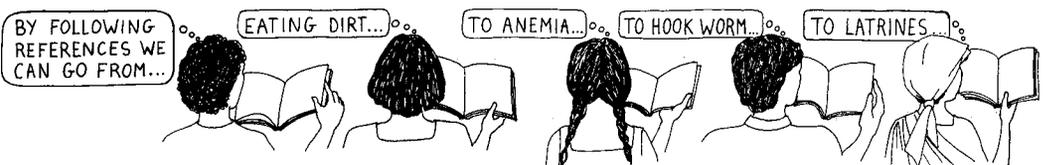
What are the dosages, risks, and precautions for these medicines? Look them up in the GREEN PAGES.

What is an *antibiotic*? You can turn to p. 351, as suggested. But for more information, look in the INDEX or the GREEN PAGES.

What are the signs of *pneumonia* and *meningitis*? How can you check for *severe pain in the ear or stomach*? If you are uncertain, look these up in the INDEX or the CONTENTS.

What are *vaccinations*? You can look in the VOCABULARY. Where can you find out more about them? Look in the INDEX or the CONTENTS. You might also try looking under 'Prevention'.

Be sure students practice looking up page references and reading the related information. They should keep practicing this until they can do it easily. The group can play a game by following references from page to page. They will find that almost everything in health care is related!

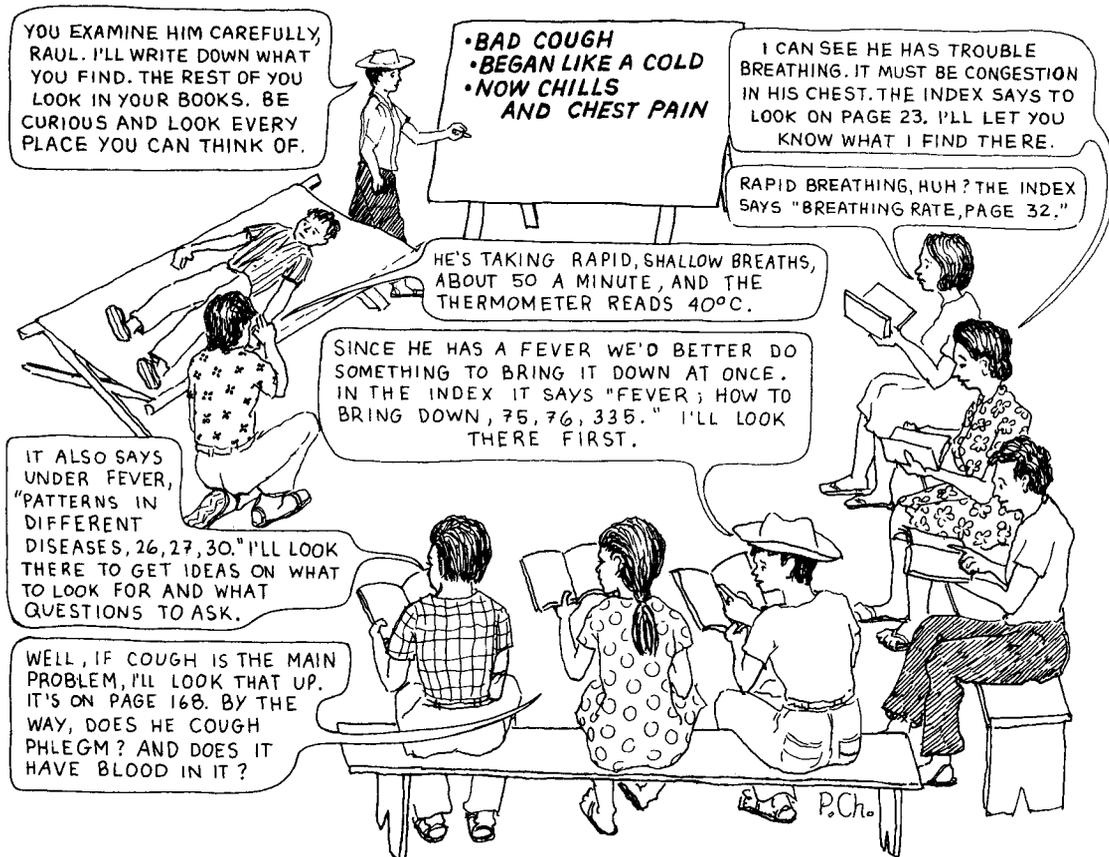


PRACTICE IN READING AND USING THE BOOK

Role-playing exercises can give students a good chance to develop skill in using *Where There Is No Doctor*—especially the CONTENTS, the INDEX, and the page references.

For example, one person can pretend he is sick with a very bad cough, in this case pneumonia. (But do not tell the students what the illness is. Let them find out through their own investigation and use of their books.) The person says his sickness began a few days ago like a cold or the flu—with a headache and sore throat. But now he feels much worse.

The students must ask questions to get more information. The 'sick person' can complain of chills or chest pain. To make it more realistic, he breathes with rapid, shallow breaths (as described in this book on page 14-11). A pretend thermometer can be used to show that he has a fever (see page 14-4).



Encourage the students to look in any part of the book where they think they might find useful information—and to share what they find with each other. Especially help those who have trouble reading or looking things up.

Using the GREEN PAGES to find information about medicines

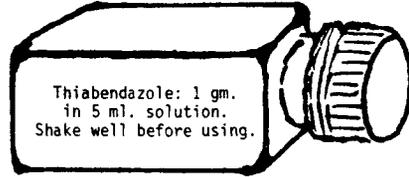
Here, too, role playing can be a realistic and fun way to practice using *WTND*.

For example, one person pretends to be the mother of a 6-year-old boy who has tapeworm. She says she has seen little flat, white worms in his shit.



Another student plays the role of the local store owner. He sells the mother a medicine called *Mintezol*, saying that it is "good for all kinds of worms."

But before giving it to her son, the mother visits the local health worker to ask if the medicine will work and how much she should give. The student playing the role of the health worker first reads the fine print on the side of the bottle:



Then he and the rest of the class help each other to look up 'Thiabendazole' in either of the lists at the beginning of the GREEN PAGES.

LIST OF MEDICINES

342	For Worms	
	Mebendazole (<i>Vermox</i>)—for many kinds of worms	374
	Albendazole (<i>Zentel</i>)—for many kinds of worms	374
	Piperazine—for roundworm and pinworm (threadworm)	375
	Thiabendazole —for many kinds of worms	375
	Pyrantel—for pinworm, hookworm, and roundworm	376
	Niclosamide (<i>Yomesan</i>)—for tapeworm	376
	Praziquantel (<i>Biltricide, Droncit</i>)—for tapeworm	376

INDEX OF MEDICINES

T	347
<i>Tagamet</i> (cimetidine)	382
<i>Terramycin</i> (tetracycline)	356
Tetanus antitoxin	389
Tetanus immune globulin	389
Tetracycline	356
Doxycycline	356
Oxytetracycline	356
Tetracycline HCl	356
Theophylline	385
Thiabendazole	375
Thiacetazone	363

Both lists say to turn to page 375. Together, the 'health worker' and the 'mother' (and the rest of the class) read what the medicine can be used for. They notice that the description says nothing about tapeworm.

So the health worker tells the mother that *Mintezol* would probably not be useful for her son's tapeworm.

If the class looks at the next page (376) of *WTND*, they will find 3 medicines that do work for tapeworm:

niclosamide (**Yomesan**), praziquantel (**Biltricide, Droncit**), and quinacrine (mepacrine, **Atabrine**). They can read about the risks and precautions, and compare the prices and availability of the different medications. The students will need to have already written in the prices of products in their area. Or the instructor can provide this information during the role play. Be sure all students write it into their books.

Niclosamide (Yomesan) —for tapeworm infection	
Name: <u>Yomesan</u>	price: <u>\$.92</u> for <u>4</u> 500 mg. tablets
Praziquantel (Biltricide, Droncit) —for tapeworm	
Name: <u>Droncit</u>	price: <u>\$ 1.57</u> for <u>16</u> 500 mg. tablets
Quinacrine (mepacrine) (familiar brand name: <i>Atabrine</i>)	
Name: <u>Fedal-Lamb</u> <u>Compuesto</u>	price: <u>\$.67</u> for <u>12</u> 100 mg. tablets

The students can now decide with the 'mother' which medicine may work best at a price she can afford. The health worker then reads or figures out the exact dosage for the child, writes it down, and explains it to the mother. If she cannot read, the health worker can use a dosage blank with pictures (see page 64 of *Where There Is No Doctor*). **Practice in finding and explaining the right dosage is extremely important.** (See page 18-10.)

It is also important that health workers read all they can about a problem before recommending medicines. So, during the role play, be sure students look up 'Tapeworm' in the INDEX or CONTENTS of *Where There Is No Doctor*, and turn to page 143.

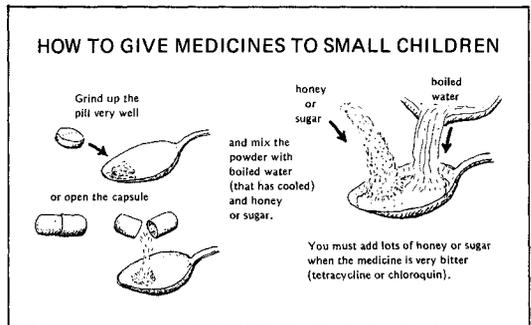
The students can use the pictures in the book to help explain to the 'mother' and her 'son' about tapeworms and how to avoid them. They may also want to look up the 'Guidelines of Cleanliness' referred to in the discussion of tapeworm prevention. (See especially p. 133 of **WTND**.)

Prevention: Be careful that all meat is well cooked, especially pork. Make sure no parts in the center of roasted meat are still raw.

Effect on health: Tapeworms in the intestines sometimes cause mild stomach-aches, but few other problems.

The greatest danger exists when the *cysts* (small sacs containing baby worms) get into a person's brain. This happens when the eggs pass from his stools to his mouth. For this reason, **anyone with tapeworms must follow the guidelines of cleanliness carefully—and get treatment as soon as possible.**

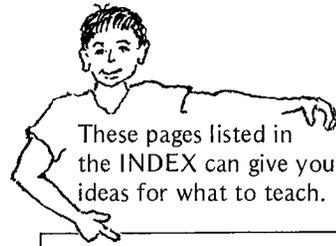
Depending on your local situation, the role play can be developed in various ways. For example, the mother might complain that her son will not swallow pills. What should she do? The health worker and mother can look in the INDEX or CONTENTS, and will be guided to page 62.



Or the health worker might go with the mother to return the unused medicine and buy one that is effective against tapeworm. To interest the store owner in learning more about the medicines he buys and sells, the health worker might show him the 'Words to the Village Storekeeper (or Pharmacist)' on page 338 of *Where There Is No Doctor*.

Using the INDEX or CONTENTS to plan classes or for independent study

The INDEX (yellow pages) is a good source of ideas for independent or group study because it lists all the pages that have information about a specific subject. For example:



If health workers want to refresh their knowledge about how to **examine** someone: →

<p>Examining a pregnant woman, 250-253 a sick person, 29-38 breasts, 279 eyes, 33, 217 eyesight, 223 for appendicitis, 36, 95 for hernia, 94, 317 for knee reflexes, 183</p>

If mothers have already learned the importance of giving **Rehydration Drink** to children with diarrhea, and want to learn about other uses for it: →

<p>Rehydration Drink, 152, 311, 382-383, 400, 426 and vomiting, 161 as an enema, 15 for acute abdomen, 95 for dehydration, 9, 46, 158, 306 for newborns, 273 for very sick persons, 40, 53</p>

If health workers need to review the possible changes in appearance of the **urine**, and what problems these represent: →

<p>Urine blood in, 146, 234, 377 brown, 172 dark yellow, 151 less than normal, 151, 236 too much or often, 127, 234 pus in, 236</p>
--

The list of CONTENTS at the beginning of the book can also be useful for planning classes or study. For example, if a group of concerned persons in the community wants to learn about the special problems of old people, the list of CONTENTS may help them plan what to study.

Chapter 22	
HEALTH AND SICKNESSES OF OLDER PEOPLE.323	
Summary of Health Problems Discussed in Other Chapters 323	Deafness with Ringing of the Ears and Dizziness 327
Other Important Illnesses of Old Age 325	Loss of Sleep (Insomnia) 328
Heart Trouble 325	Diseases Found More Often in People over Forty 328
Words to Younger Persons Who Want to Stay Healthy When Older 326	Cirrhosis of the Liver 328
Stroke (Apoplexy, Cerebro-Vascular Accident, CVA) 327	Gallbladder Problems 329
	Accepting Death 330

In several health programs we know, village health workers meet every month or so to review a chapter of **WTND**, or part of a chapter, in order to continue learning. In other programs, health workers and teachers meet regularly with parents, school children, or mothers' clubs to read and discuss the book, chapter by chapter.

There are many ways people can use a book like **Where There Is No Doctor**. But to use it fully and well takes a lot of practice. Practice guided by friendly persons who have experience in using reference books is especially helpful.