

Practice in Using Guides, Charts, and Record Sheets

CHAPTER

21

GUIDES AND CHARTS

THAT HELP TELL DIFFERENT PROBLEMS APART

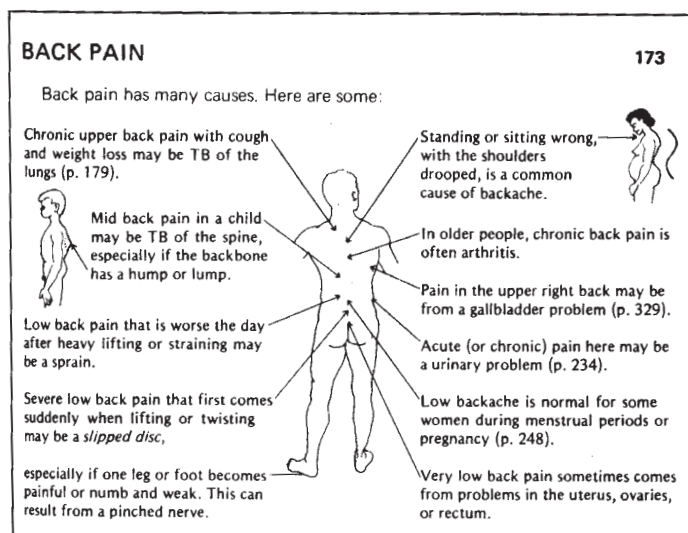
Many illnesses look similar and can easily be confused. And sometimes similar-looking illnesses are called by the same traditional name. Yet they may have different causes and require very different treatments. Health workers need to know what to ask and what to look for, so they can systematically consider the different possibilities. (See Chapter 17 on Solving Problems Step by Step.)

The process of considering several possible diseases that may be causing a person's problem, and figuring out which is the most likely, we will call *comparative diagnosis*.

A health handbook like *Where There Is No Doctor* can be a useful tool for comparative diagnosis. But to learn to use it well takes considerable practice.



A problem like back pain can have many different causes.



This diagram on page 173 of *Where There Is No Doctor* shows common causes of pain in different parts of the back. After finding out exactly where the person feels pain, look up and read about each possible cause of his problem.

Learning to use diagnostic guides and charts:

Where There Is No Doctor contains several guides and charts that can help you tell similar health problems apart. These charts usually list one or two important signs for each problem. If the person you are examining has any of these signs, turn to the page number shown on the chart for more information. Compare the signs and symptoms of each problem to determine which is most likely.

When helping persons learn to use *Where There Is No Doctor*, be sure to **review the various diagnostic charts and guides, and explain how to use them.**

Some of the guides and charts show drawings or give details to make it easier to tell one problem from another. Others just list possible causes for readers to look up for themselves. It can be more fun and realistic if you invent problems and act out situations to help the students use their books as guides for comparative diagnosis.

USEFUL INFORMATION, GUIDES, AND CHARTS FOR TELLING HEALTH PROBLEMS APART

(page numbers in *Where There Is No Doctor*)

	page		page
Examples of sicknesses that are hard to tell apart	20	Back pain	173
Local names for sicknesses	22-24	Swelling of the feet	176
Different illnesses that cause fever	26-27	Seizures (convulsions)	178
How to examine a sick person	29-38	Skin problems	196-198
Belly pain	35-36	Red, painful eyes	219
Loss of consciousness	78	Eye problems	224-225
Recognizing infected wounds	88	White patches or spot in the mouth	232
Emergency problems of the gut	93	Urinary tract problems	234
Severe malnutrition	112-114	Vaginal discharge	241-242
Acute diarrhea	153, 157, 158, 160	Pain in the lower part of a woman's belly	243
Vomiting	161	Infertility	244
Cough	168	Illnesses of the newborn	272-275

Don't forget to check the Index 435-448

We have found it helpful to practice using a few of these guides each week during training. Choose those that relate to the health problems the students are learning about that week. This way, as they increase their knowledge of health problems, they also develop skills in using the book and in scientific problem solving. They can practice by means of role playing in class, as well as when helping attend sick persons in the clinic and community.

Other information useful for comparative diagnosis:

In addition to the charts and guides already listed above, there are many other pages in *Where There Is No Doctor* with information that can help in telling one health problem from another. For example:

<u>Information</u>	<u>page</u>
Emergencies caused by heat	81
Snakebite	104
Difficulty passing urine	234-236
Different kinds of breast lumps	279
Lumps or growths in the lower part of the belly	280
A swollen testicle	317
Paralysis of the face	327

We did not include these in the above list of guides and charts because they usually deal with only 2 or 3 possible causes. But when you are looking up these health problems, the comparisons of signs and histories will help you tell one cause from another.

LEARNING TO TELL SIMILAR PROBLEMS APART

A good way to introduce the idea of *comparative diagnosis* is to have students turn to page 20 of *Where There Is No Doctor*.

There they will find 2 examples showing similar-looking problems that can be caused by many different diseases.

The students can take turns role playing each of the possible causes. Each person who acts out a particular problem should be sure to look up the signs and history ahead of time. In the role play, everyone asks him questions and examines him to figure out which possibility is most likely. See Chapter 14 of this book for ideas on how to make role playing more effective and fun.

During each role play, students can **list the possible causes of the problem on the blackboard**. Then write any reasons that make each one more or less likely.

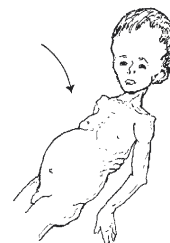
20

SICKNESSES THAT ARE HARD TO TELL APART

Sometimes diseases that have different causes and require different treatment result in problems that look very much alike. For example:

1. A child who slowly becomes thin and wasted, while his belly gets more and more swollen, could have any (or several) of the following problems:

- malnutrition (p. 112)
- a lot of roundworms (p. 140), usually together with malnutrition
- advanced tuberculosis (p. 179)
- a long-term severe urinary infection (p. 234)
- any of several problems of the liver or spleen
- leukemia (cancer of the blood)
- HIV (p. 401)



2. An older person with a big, open, slowly growing sore on the ankle could have:

- bad circulation that results from varicose veins or other causes (p. 213)
- diabetes (p. 127)
- infection of the bone (osteomyelitis)
- leprosy (p. 191)
- tuberculosis of the skin (p. 212)
- advanced syphilis (p. 237)



list of
possible
diseases

list of
possible
diseases

If someone pretends that an open sore painted on her ankle is caused by diabetes, the blackboard might look like this after role playing.

☒ BAD CIRCULATION	NO VARICOSE VEINS FOOT NOT SWOLLEN
☒ DIABETES	OFTEN THIRSTY OR HUNGRY. URINATES A LOT; SWEET URINE HISTORY OF CHRONIC INFECTIONS
☒ BONE INFECTION	INFECTION NOT DEEP
☒ LEPROSY	NO LOSS OF FEELING NO DEFORMITIES OF HANDS OR FEET
☒ T.B. OF THE SKIN	NO T.B. IN FAMILY NO HISTORY OF CHRONIC COUGH
☒ ADVANCED SYPHILIS	NO HISTORY OF CHANCERE. NO RASH, WELTS, OR SWOLLEN JOINTS

Make a check (✓) beside each possible cause, after the group has asked questions about it and examined the person for signs. If the illness proves unlikely, make a cross through the check mark.

The same system of listing problems and checking them off can be used when the health workers are learning to attend sick people in the clinic or community. Each person can keep track of their questions, tests, findings, and diagnoses in a notebook or on a record sheet. That way, if the problem is discussed afterward in class, each student will have a written record of what he thought and asked.

LEARNING TO READ CHARTS



Many health workers will need help, at first, in learning to understand and use charts. Show students how to read them—both from left to right and from top to bottom. Help them understand what information is in each column or box. Have them practice using charts to find the most likely cause of a problem.

For example: If a sick person's main complaint is a cough, students can turn to page 168 of *Where There Is No Doctor*. There they will find a chart listing the problems that cause different kinds of coughs. Ask the students:

- What does this chart mean?
- How can it help us to find the cause of the person's cough?

Point out that there are 5 boxes.

Each box names a type of cough in large letters at the top,

followed by a list of problems that may cause that kind of cough.

Page references are given so the reader can easily look up each problem.

DRY COUGH WITH LITTLE OR NO PHLEGM: cold or flu (p. 163) worms—when passing through the lungs (p. 140) measles (p. 311) smoker's cough (smoking, p. 149)	COUGH WITH MUCH OR LITTLE PHLEGM: bronchitis (p. 170) pneumonia (p. 171) asthma (p. 167) smoker's cough, especially when getting up in the morning (p. 149)	COUGH WITH A WHEEZE OR WHOOP AND TROUBLE BREATHING: asthma (p. 167) whooping cough (p. 313) diphtheria (p. 313) heart trouble (p. 325) something stuck in the throat (p. 79)
CHRONIC OR PERSISTENT COUGH: tuberculosis (p. 179) smoker's or miner's cough (p. 149) asthma (repeated attacks, p. 167) chronic bronchitis (p. 170) emphysema (p. 170)		COUGHING UP BLOOD: tuberculosis (p. 179) pneumonia (yellow, green, or blood-streaked phlegm, p. 171) severe worm infection (p. 140) cancer of the lungs or throat (p. 149)

To use the chart, explain that it is best to:

- First observe and ask questions, to find out which of the 5 types of cough the person seems to have.
- Then look up each problem listed in that section of the chart. Read more about the typical signs and history of each.
- Now ask more questions and examine the person to determine which cause is most likely. Use the step-by-step approach to problem solving (Chapter 17).
- At each step be sure to **consider all of the possibilities**. Do not make the diagnosis until you have made sure that other causes are less likely.

Note: Remind students that their book does not include every possible cause of a problem, but only the more common causes. If the diagnosis is unclear or the signs are confusing, they should try to get more experienced medical help.

AN EXAMPLE OF HOW TO LOOK SOMETHING UP, USING CHARTS OR THE INDEX:

Suppose someone has swollen lymph nodes and you want to know the possible causes. There are 3 places in your book where you might look.

1. The Guide to Identification of Skin Problems—pages 196 to 198 of *Where There Is No Doctor*. This has drawings and descriptions of various skin problems. You can see what each problem looks like up close, and where it usually occurs on the body. The possible causes are named, and page references are given.

To make the best use of this guide, health workers need to understand how the information is organized.

Problems that look similar are grouped in the same box.

There is a box for each of the following signs:

- small sores
- large open sores
- lumps
- swollen lymph nodes
- spots or patches
- warts
- rings
- welts or hives
- blisters
- rash

Each vertical column on the chart gives a certain kind of information:

IF THE SKIN HAS:	AND LOOKS LIKE:	YOU MAY HAVE:	SEE PAGE:
swollen lymph nodes 	Nodes on the side of the neck that continuously break open and scar.		scrofula (a type of tuberculosis) 212
	Nodes in the groin that continuously break open and scar.		buboes (lymphogranuloma venereum) 237 chancroid 405
lumps under the skin 	A warm, painful swelling that eventually may break open and drain pus.		abscess or boil 202
	A warm, painful lump in the breast of a woman breastfeeding.		mastitis (bacterial infection), possibly cancer 278 279
	A lump that keeps growing. Usually not painful at first.		cancer (also see lymph nodes) 279 88

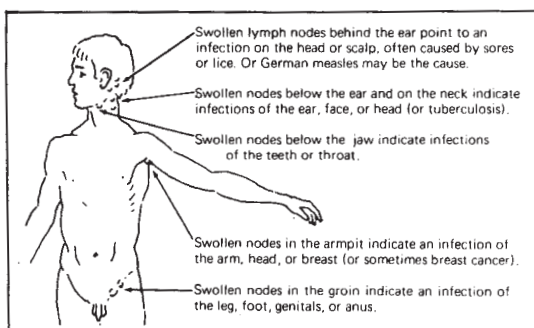
↑
picture of what the problem looks like up close

↑
details about possible causes of the problem

↑
drawing of each possible cause, showing where it may occur on the body

↑
name of the disease

↑
page in *WTND*



2. Discussion of swollen lymph nodes—page 88 of *WTND*. This has a picture showing places on the body where swollen lymph nodes can appear with different problems. But no page references are given. You have to look up possible causes in the Index.

from the INDEX of *WTND*

Lymph nodes, swollen, 88, 317, 424
caused by an abscess, 202
in the groin, 238, 403
signs of infection, 194
TB of, 212
with AIDS, 400
with breast cancer, 279
with brucellosis, 188 or typhus, 190
with German measles, 312
with scabies or lice, 199, 200

3. The INDEX (yellow pages) of *WTND* also can be used as a guide to possible causes of health problems. It does not provide any details, but it lists the pages on which you can find more information. When in doubt about the cause of a problem, be sure you **check all of the page references**. Some may be more helpful than others.

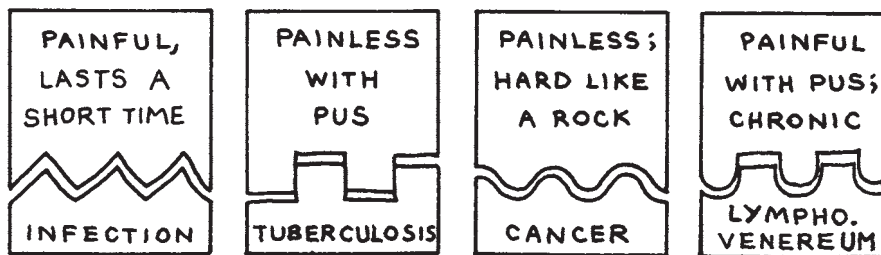
BASING TEACHING MATERIALS ON CHARTS OR GUIDES

Many of the charts and guides in *Where There Is No Doctor* can provide ideas for teaching aids that help health workers to practice comparative diagnosis. Here are two examples from Project Piactla in Mexico.

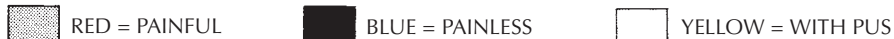
Example 1: Swollen lymph nodes

During one training course, health workers made a flannel board puzzle to help themselves review the different kinds of swollen lymph nodes. The puzzle is based on information from pages 88, 196, and 197 of *Where There Is No Doctor*.

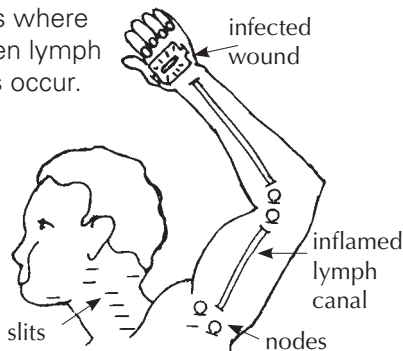
First they made puzzle cards showing on one half the signs of a problem causing swollen lymph nodes, and on the other half the name of the problem that most often causes those signs.



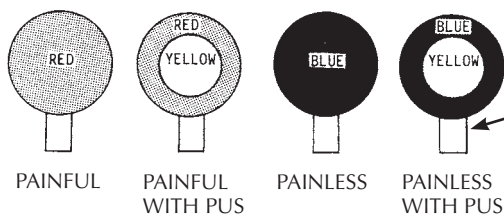
They chose 3 colors to represent signs of different kinds of swollen lymph nodes:



Then the students made a figure of a man, with slits cut in the neck and other places where swollen lymph nodes occur.



Next they cut out and colored 4 kinds of cardboard "lymph nodes":



The "lymph nodes" have tabs that fit into the slits in the cardboard man.



The student health workers first practice with the puzzle cards to learn the signs of each problem. Then they use the big drawing of the man to review the different problems and where on the body they appear.

The students take turns placing the colored nodes, wound, and lymph canal pieces on the cardboard man to show the signs of problems described in *Where There Is No Doctor*. They challenge each other to correctly identify and find the treatment and prevention for each problem they create.

Test yourself. Can you name the probable causes of the swollen lymph nodes shown in these photos?

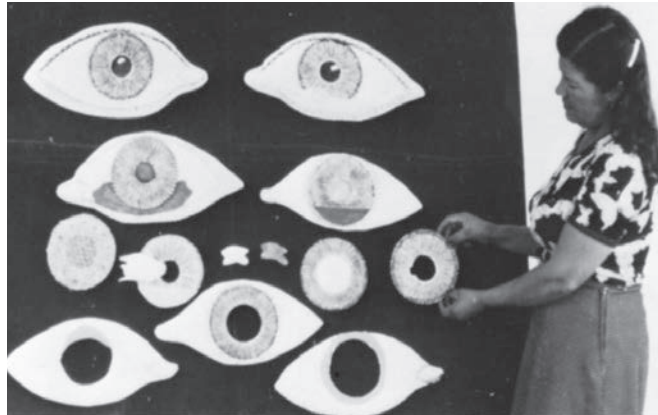


By making these teaching materials themselves and testing each other with the puzzle cards, health workers soon learn to recognize the different problems.

Example 2: Eye problems

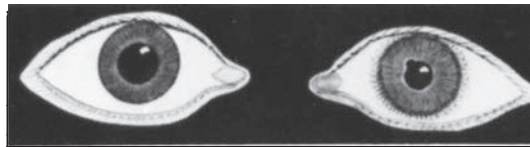
During another Project Piactla training course, the student health workers made a flannel board puzzle for eye problems. It includes most of the problems described in Chapter 16 of *Where There Is No Doctor*. The students cut out and colored cardboard pieces to represent the whites of the eyes, irises, and lenses. They also made cut-outs of blood clots, Bitot's spots, corneal scars, fleshy growths (*pterygia*), pus, and so on. One "white of an eye" they colored yellow to represent jaundice.

Then the students took turns putting the pieces together on the flannel board to form specific problems. The group used their books to try to identify the problems and find recommendations for treatment.



HERE ARE SOME EXAMPLES:

This eye has no problems.



This eye is very painful. What is the problem? (See *WTND*, p. 221.)

This eye has bleeding behind the cornea. What should you do? (See *WTND*, p. 225.)



This eye has pus behind the cornea. What should you do? (See *WTND*, p. 225.)

People sometimes call the two problems below "cloudiness" in the eye.

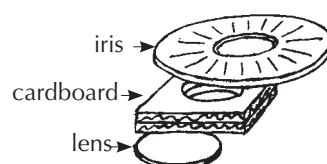
But a scar on the cornea is on the surface.



And a cataract is a cloudy lens behind the pupil.

shadow

To determine whether clouding in the pupil is a cataract, health workers can shine a flashlight sideways into the person's eye. If there is a cataract, a moon-shaped shadow is seen on the clouded lens. To get the same effect in the teaching aid, put a ring of thick cardboard between the iris and the lens.



GUIDES AND CHARTS THAT TEACH SAFE LIMITS



An essential part of training is to help health workers learn to recognize their limits: “Which sick persons can I safely treat in the community?” “Which should I send to a clinic or hospital for more specialized medical care?”



The answers to these questions will be different for each health program. They will also differ from one health worker to another and from village to village. When considering limits of what health workers should be taught or encouraged to do, several factors need to be taken into account:

- How common are the different serious problems in your area?
- How much curative medicine has the health worker learned?
- How much practice has he had in careful, step-by-step problem solving?
- What medicines and supplies are likely to be available?
- How long, difficult, or dangerous is the journey to the closest clinic or hospital?
- How much would doctors be likely to do to help the sick person?
- Can the family afford the emergency trip and the cost of reliable professional treatment?
- What do local people believe or fear about doctors and hospitals?

Clearly, community health workers should be trained to take certain essential emergency measures—even when they are able to refer the sick person to a hospital. Correct early treatment for a serious illness can often make the difference between life and death.

Where There Is No Doctor has several guides and charts to help identify serious illnesses that require medical care beyond the limits of most health workers. In some cases, immediate emergency treatment is also indicated.

GUIDES AND CHARTS INDICATING NEED FOR SPECIAL CARE	page
Signs of dangerous illness.	42
When it is important to give injections	66
Emergency problems of the gut (acute abdomen)	93
When to seek medical help in cases of diarrhea.	159
Serious illnesses that need special medical attention.	179-192
Danger signs with eye problems.	217
Signs of special risk that make it important that a doctor or skilled midwife attend the birth—if possible in a hospital	256

During training, health workers can learn to use these charts and guides through storytelling, role plays, and actual clinical practice. Almost everyone has had experiences with emergencies in his own village. These can be told or acted out by the group. Students can use the guides and charts in their books to decide how to handle the different emergencies, and to determine when they would have to refer persons to a hospital or clinic.

Stories that help students to explore limits and use charts

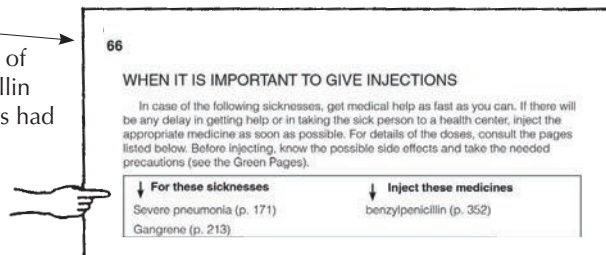
To follow are two examples of how storytelling can help students to practice using their health manuals. As a story is told, have students look things up in their books and discuss what they might have done.

STORY 1: A child with severe pneumonia

In a village in the *llanos* (plains) of Colombia, a young child got severe pneumonia during the rainy season. Although it would have been easy to make the 2-hour trip to the hospital during dry weather, now the river was high and the trip was impossible.

Luisa, the local health worker, looked in her copy of *Where There Is No Doctor* and found this on the chart on page 66.

Her training had not covered injecting of antibiotics, and she had no benzylpenicillin among her supplies. The program leaders had decided that it was “too risky” for health workers to treat serious infections like pneumonia. So all health workers had been instructed to refer anyone with pneumonia to the hospital.



Since they were unable to cross the river, Luisa took the family to the local storekeeper. He sold them the benzylpenicillin and agreed to give the injections himself. Luisa also helped the family to follow the other steps for treatment of pneumonia, described on p. 171 of *WTND*. The child soon got well.

After telling the story, start a discussion with questions like these:

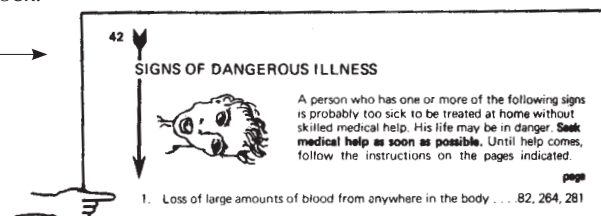
- Do problems like this happen in your area?
- Was the health worker correct in going to the storekeeper for help?
- What would you have done?
- Had the program leaders thought about the village's isolation during the rainy season when they planned the training course?
- If so, why do you suppose they did not teach the health workers emergency measures for life-threatening problems? Who were these leaders trying to protect? (The sick? The health workers? Themselves?)
- How might the program leaders have handled the training differently?

STORY 2: A birth emergency

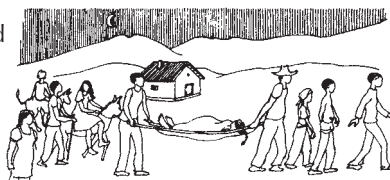
In the mountains of Mexico, a village health worker named Esteban was called in the middle of the night to help Doña Mercedes, a local midwife. A woman whose baby she had delivered was bleeding dangerously. Only part of the placenta had come out. By the time Esteban arrived, 4 sheets and several towels were soaked with blood and the woman, Carmelita, was bleeding faster. She was in danger of going into shock.

Esteban looked on page 42 of *Where There Is No Doctor*. He found this.

Turning to page 264, Esteban and Doña Mercedes read about how to stop the bleeding. First they put the baby to Carmelita's breast. Then Doña Mercedes massaged the womb as shown in the pictures on page 265, while Esteban prepared an injection of oxytocin. They also gave Carmelita some hot tea, and began to treat her for shock. Together they managed to stop the bleeding.



Esteban recommended that they take Carmelita to a hospital at once. Her husband made a stretcher, and he and some neighbors began the 8-hour journey to the nearest road. Esteban went, too. He made sure that Carmelita kept warm and drank plenty of liquids. He massaged her womb every time it began to get soft.



Esteban took Carmelita to a hospital where there was a doctor he trusted. She needed a blood transfusion and a simple operation. In a few days she was out of danger, though still very weak. The doctor praised the quick action by Doña Mercedes and Esteban, saying that their emergency treatment had saved Carmelita's life.

After returning to her village, Carmelita was still very pale from losing so much blood. So Esteban showed her the pages on anemia in **Where There Is No Doctor** (p. 124). She began eating *quelite* (wild spinach) and other foods rich in iron. She and her husband discussed with Doña Mercedes and Esteban how they might plan their family to give her body time to recover strength and make new blood between births.

Two years later, Carmelita became pregnant again. Doña Mercedes visited her and her husband to talk about the coming birth. Together, they looked on page 256 of **Where There Is No Doctor**.

One warning sign definitely applied to Carmelita: "If she has had serious trouble or severe bleeding with other births." Carmelita's husband agreed to take her to stay with her cousin in the city at least a month before the baby was due.

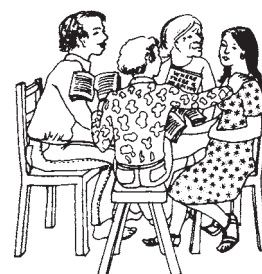


Signs of Special Risk that Make it Important that a Doctor or Skilled Midwife Attend the Birth—if Possible in a Hospital:

- If regular labor pains begin more than 3 weeks before the baby is expected.
- If the woman begins to bleed before labor.
- If there are signs of pre-eclampsia (p. 249).
- If the woman is suffering from a chronic or acute illness.
- If the woman is very anemic or if her blood does not clot when she cuts herself.
- If she is under 15 or over 40, or if it is her first pregnancy and she is over 35.
- If she has had more than 5 or 6 babies.
- If she is especially short or has narrow hips (p. 267).
- If she has had serious trouble or severe bleeding with other births.
- If she has diabetes or heart trouble.
- If she has a hernia.
- If it looks like she will have twins (p. 269).
- If it seems the baby is not in a good position (head down) in the womb.
- If the bag of waters breaks and labor does not begin within a few hours. (The danger is even greater if there is fever.)
- If the baby is still not born 2 weeks after 9 months of pregnancy.

Discussion questions:

- Do you know of women who have had problems like Carmelita's? What happened?
- What would you have done as a health worker in Esteban's position?
- Did Esteban work within his limits?
- How were his limits determined? By whom? Were they reasonable?
- If Esteban had been within 10 minutes of a doctor, should he have done the same thing? Why or why not?
- In general, what are the factors that should determine a health worker's limits (how much he should or should not do)?
- Should the limits be the same for all health workers with the same training? Who should decide?



Note to instructors: Rather than reading these stories to a group of health workers, you may prefer to tell stories from your own area. Also, instead of stating the page numbers of charts and information from **Where There Is No Doctor**, you may want to interrupt the story by asking students, "Where would you look in your books to find out about this?"

PRACTICE IN USING RECORD SHEETS

The value of keeping simple but effective records is discussed on page 10-8. Here we will explore teaching methods and aids that help health workers learn about recording personal health information.

Where There Is No Doctor contains 4 different forms for recording health information:

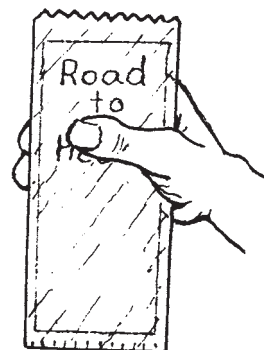
PATIENT* REPORT (*WTND*, p. 44). This is intended for use by sick persons or their families when sending for medical help. But health workers can also use this form to keep a record of a person's illness, or to pass on information if the person is referred to a hospital or clinic.

DOSAGE BLANKS (*WTND*, pages 63 to 64). These are used for giving written instructions on how to take medicines. If carefully explained, they can be understood even by persons who cannot read. A copy of this information should also be kept with the health worker's own records.

			
			
Name: <u>Johnny Brown</u>			
Medicine: <u>Piperazine 500mg. tablets</u>			
For: <u>Thread worm</u>			
Dosage: <u>Take 2 tablets twice a day</u>			

RECORD OF PRENATAL CARE (*WTND*, p. 253). This is an important tool for keeping track of a woman's health during pregnancy. Health workers can use the form as part of a program of regular prenatal check-ups. Or they can assist local midwives in organizing a prenatal program and keeping records. (Methods of birth record keeping for midwives who cannot read are discussed on page 22-7 of this book.)

CHILD HEALTH CHART, formerly called "Road to Health" Chart (*WTND*, pages 298 to 304). This form, an important part of an under-fives program, is used to record the monthly weighing, vaccinations, and health of small children. Parents keep the charts and bring them to each weighing. In addition to knowing how to use the charts themselves, health workers should also be able to teach parents to use and understand them. This is discussed in the next chapter, on page 22-15.



Health workers need practice in using—and teaching others to use—forms and record sheets like the ones described on this page. The use of these forms can be brought to life through role playing and practice in the community or clinic. On the following pages we give 2 examples of ways to introduce record sheets and forms. You will think of other ways yourself.

*Normally in this book and in our health work, we try not to use the word "patient." We prefer to say "sick person," keeping in mind the whole person, who (like all of us from time to time) happens to be sick.

LEARNING RECORD KEEPING THROUGH ROLE PLAYS

To sit down with a group of students and tell them how to fill out record sheets can be boring for everyone. This is because such a lesson does not immediately relate to real problems or real life. Students are likely to pay little attention and to end up using the record forms incorrectly, carelessly, or not at all.

It is far more interesting for health workers to learn to fill in records while actually attending a sick person, weighing a baby, or checking the health of a pregnant woman. But in fairness to everyone, some classroom preparation should be done in advance.

To make the classroom learning more realistic, whenever possible try to base it on situations that students have just experienced in the clinic or community. These may be emergencies, consultations, or health problems seen in prenatal check-ups or under-fives clinics. Students can report what they have seen to the rest of the group, perhaps in a role play. At the same time, the rest of the class practices recording the information on the suitable form. This way, everyone learns from the experience of a few students. Even those who were actually involved benefit from the suggestions and criticism of the group.



A role play about an injured person who was carried in on this stretcher the day before. (Mexico)

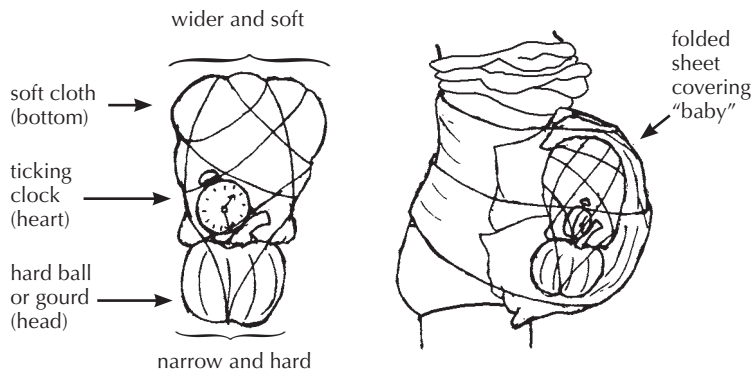
Example: Using the record form for prenatal care

Some student health workers in Mexico saw a pregnant woman at one of her regular prenatal check-ups. Her main complaint was swollen feet. Otherwise she felt fine. This is what was written on her RECORD OF PRENATAL CARE:

RECORD OF PRENATAL CARE														
NAME <u>JUANA GARCIA</u>		AGE <u>28</u>	NUMBER OF CHILDREN <u>6</u>	AGES	DATE OF LAST CHILDBIRTH <u>MARCH 1, 79</u>									
DATE OF LAST MENSTRUAL PERIOD <u>JULY 17, 79</u>		PROBABLE DATE FOR BIRTH <u>APRIL 24, 80</u>		PROBLEMS WITH OTHER BIRTHS <u>ONE BREECH</u>										
MONTH	DATE OF VISIT	WHAT OFTEN HAPPENS	GENERAL HEALTH AND MINOR PROBLEMS	ANEMIA (how severe) ?	DANGER SIGNS (see p. 249)	SWELLING (where? how much?)	PULSE	TEMP.	WEIGHT (estimate or measure)	BLOOD PRESSURE *	PROTEIN IN URINE *	SUGAR IN URINE *	POSITION OF BABY IN WOMB	SIZE OF WOMB (how many fingers above (+) or below (-) the navel?)
1 Aug.														
2 Sept.	15	tiredness, nausea, and morning sickness	tired vomiting	NO	NONE	NO	68	37	51 kg.	110/70	NO	NO		
3 Oct.														
4 Nov.	12	womb at level of the navel	O.K.	"	"	"	68	36.9	52.5 kg.	112/70	"	"		0
5 Dec.	8	baby heartbeat & 1st movements	O.K.	"	"	"	70	37	53 kg.	108/68	"	"		+ 1
6 Jan.	10		O.K.	"	"	"	72	36.9	54 kg.	110/70	"	"		+ 3
7 Feb.	15	some swelling of feet	swelling of feet	"	"	Feet ++	70	36.9	55.5 kg.	112/74	"	"	8	+ 5
8 March		constipation												+ 3rd
9 April	1st week	heartburn												+
	2nd week	varicose veins												+
	3rd week	shortness of breath												+
	4th week	frequent urination												+
		baby moves lower in belly												+
BIRTH														

The students made a copy of the record form, leaving the line for the 7th month blank. The next day they organized the following role play for their fellow students. (See next page.)

The instructor helped the students make a pretend baby:



Note: Most clocks make about 240 ticks (or 120 "tick-tocks") per minute. The normal heartbeat of an developing baby is 160 beats per minute. Below 140 or over 180 beats per minute is a sign of trouble. This can be discussed with the students. Practice in timing a rapid prenatal heartbeat is important.

One student put the "baby" under her dress and pretended that she was about 7 months pregnant.

The other students asked her about her problem and then looked in the INDEX of *WTND*.

They found the same page references listed under both headings. Look up these page references in your own book to see what the students found:



Some looked under "Feet":

Feet
clubbed, 319
loss of feeling in, 127, 162, 173, 191-192
swelling of, 113, 124, 144, 176, 248-249, 323

Wet malnutrition (kwashiorkor), 113

Anemia (severe), 124

Trichinosis, 144

Others looked under "Swelling":

Swelling
breast swelling and lumps, 278-279
caused by medicine, 68, 70-71, 231
home cure for, 12
in old age, 323
of broken arms or legs, 14
of hands and face, 108, 239, 249
of strains and sprains, 102
of the eyes, 144, 221, 313
of the feet, 113, 124, 144, 176, 248-249, 321
of the scrotum or testicles, 312, 317
with infection, 194
(Also see Lymph nodes, Swollen belly, Varicose veins)

Swelling of the feet (several causes), 176

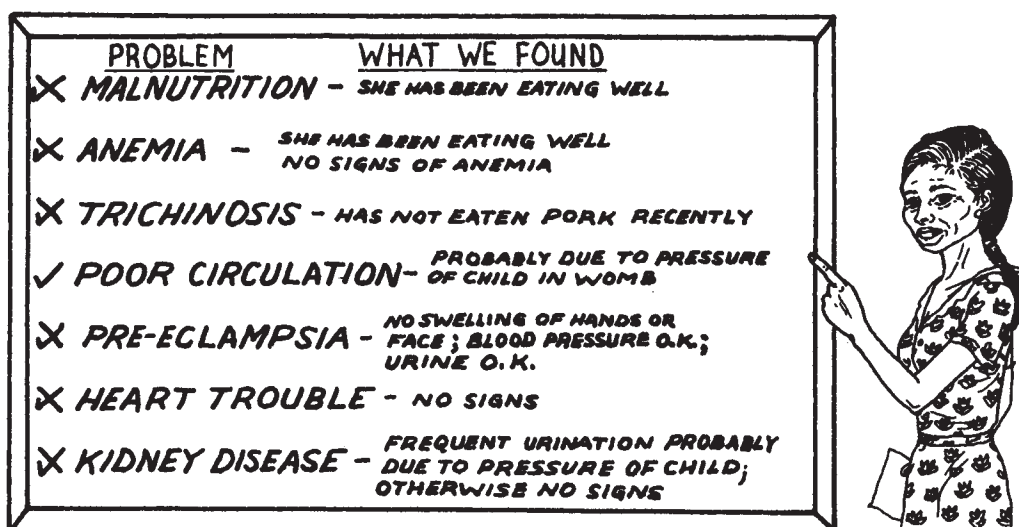
Minor problems and danger signs during pregnancy, 248-249

Swelling of the feet in older people, 323

The students then asked the "pregnant woman" about what she had been eating and what other problems she had. They examined her for swelling of the face and hands, paleness of the gums and fingernails, and other signs of the possible causes of swollen feet. They took care to explain what they were looking for and why, so the woman would learn about her problem and also feel more relaxed.

Following the suggestions for prenatal care in *Where There Is No Doctor*, the health workers measured the woman's pulse, temperature, weight, and blood pressure. Since they had just learned how to use a small plastic "dipstick" to check protein and sugar in the urine, they did that also. Last, they checked the size of the "womb," felt for the position of the baby, and listened for its heartbeat. To their surprise (since the student was not really pregnant), they were able to determine all three!

This is how the blackboard looked after the health workers had finished figuring out the most likely cause of the woman's swollen feet:



Luckily for the woman, the swelling was probably due to the pressure of the baby in her womb causing poor blood circulation in her legs. This is a common but minor problem during the last months of pregnancy. (The other possible causes are all serious health problems.)

The group reassured the woman that her problem did not seem to be dangerous. They suggested that she rest with her feet up as often as possible. They advised her to keep eating nutritious food, but with relatively little salt. And they also suggested that she drink a tea made from maize silk (see *Where There Is No Doctor*, page 12). Then they explained the signs of pre-eclampsia, warned her to watch for them, and asked her to come back immediately if any danger signs appeared.

The role play might have ended there. But the health workers who had actually seen the pregnant woman reminded their fellow students to think more about prevention and about other minor problems common in the last months of pregnancy. With this in mind, the students checked their books and decided they should give the woman a second tetanus vaccination. (According to her chart, she had been given the first at 6 months.) And some students offered her advice about other minor problems she might expect in the coming weeks: constipation, heartburn, varicose veins, shortness of breath, and frequent urination. Last of all, they recorded the information on the line opposite the 7th month on the RECORD OF PRENATAL CARE.

Note: When students do role plays or actual consultations, try having them use the CHECKLIST FOR EVALUATING A CONSULTATION (page 8-10 of this book) to see how well they have done.

USING RECORD SHEETS AND TEACHING AIDS TO HELP STUDENTS UNDERSTAND SPECIFIC TREATMENTS

One day, health workers in Ajoya, Mexico received a PATIENT REPORT about a very sick man in a village 19 kilometers away. The man had not urinated for a day and a half, and was in great pain.

First the health workers discussed what were the most likely causes of the man's problem, and what complications there might be. Then they packed a medical kit and one of them rode up to the village with the sick man's brother, who had brought the report.

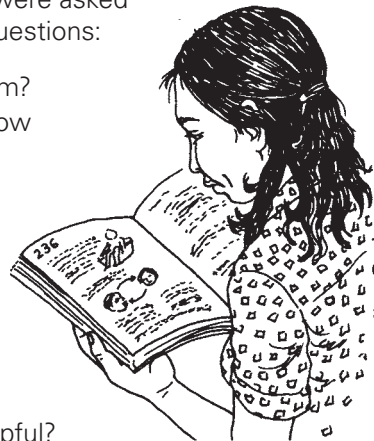
With appropriate treatment and advice, the man's condition soon improved.

During the next training course, the health workers decided to use that same PATIENT REPORT as the basis for a class on urinary problems. One person pretended to be the sick man, while someone else led the students in figuring out the cause of the problem and how to treat it.

PATIENT REPORT	
TO USE WHEN SENDING FOR MEDICAL HELP.	
Name of the sick person:	<u>RAMON GONZALEZ</u> Age: <u>43</u>
Male: ☒ Female: ☐	Where is he (she)? <u>VERANO VILLAGE - 19 km away</u>
What is the main sickness or problem right now? <u>CAN NOT URINATE, SEVERE PAIN IN BELLY</u>	
When did it begin? <u>2 DAYS AGO</u>	
How did it begin? <u>SHARP PAIN IN LEFT SIDE</u>	
Has the person had the same problem before? <u>YES</u> When? <u>LAST YEAR</u>	
Is there fever? <u>YES</u> How high? <u>38.8 °</u> When and for how long? <u>2 DAYS</u>	
Pain? <u>YES</u> Where? <u>LOWER BELLY</u> What kind? <u>SEVERE</u>	
What is wrong or different from normal in any of the following?	
Skin: <u>—</u>	Ears: <u>—</u>
Eyes: <u>—</u>	Mouth and throat: <u>—</u>
Genitals: <u>PAIN AT BASE OF PENIS</u>	
Urine: Much or little? <u>LITTLE</u> Color? <u>YELLOW</u> Trouble urinating? <u>YES</u>	
Describe: <u>BLOOD AT FIRST</u> Times in 24 hours: <u>0</u> Times at night: <u>0</u>	
Stools: Color? <u>BROWN</u> Blood or mucus? <u>—</u> Diarrhea? <u>—</u>	
Number of times a day: <u>—</u> Cramps? <u>—</u> Dehydration? <u>NO</u> Mild or severe? <u>—</u> Worms? <u>NO</u> What kind? <u>—</u>	
Breathing: Breaths per minute: <u>20</u> Deep, shallow, or normal? <u>NORMAL</u>	
Difficulty breathing (describe): <u>NO</u> Cough (describe): <u>—</u>	
Wheezing? <u>—</u> Mucus? <u>—</u> With blood? <u>—</u>	
Does the person have any of the SIGNS OF DANGEROUS ILLNESS listed on page 42? <u>YES</u> Which? (give details): <u>7. A DAY OR MORE WITHOUT BEING ABLE TO URINATE 17. BLOOD IN URINE</u>	
Other signs: <u>SWELLING OF BLADDER, PASSED A STONE IN URINE</u>	
Is the person taking medicine? <u>YES</u> What? <u>SULFATHIAZONE</u>	
Has the person ever used medicine that has caused hives (or bumps) with itching, or other allergic reactions? <u>NO</u> What? <u>—</u>	
The state of the sick person is: Not very serious: <u>—</u> Serious: <u>—</u>	
Very serious: <u>X</u>	
On the back of this form write any other information you think may be important.	

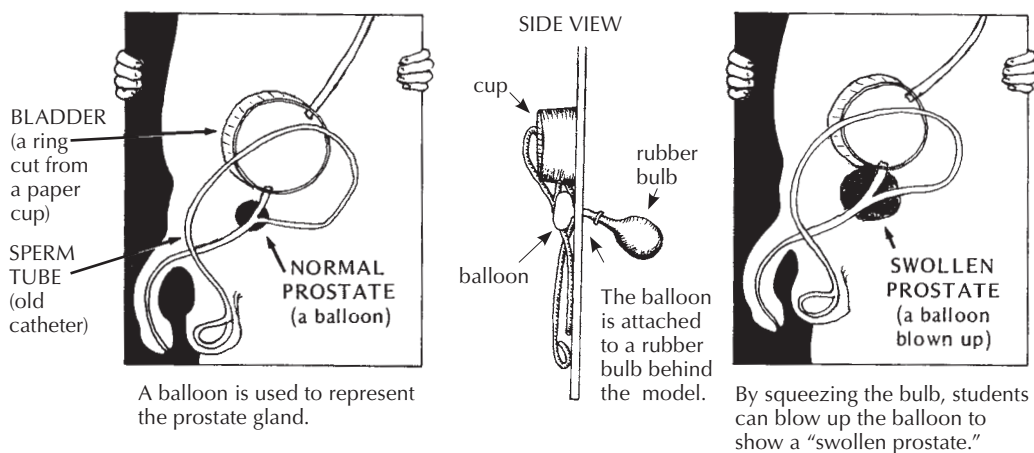
Students were shown the original PATIENT REPORT with the sick person's name and village removed, to respect his privacy. Then they were asked to look in their books and try to answer the following questions:

- What are the possible causes of the man's problem?
- Does the report contain enough information to show which cause is most likely?
- What should you look for and ask in order to find out which cause is most likely?
- Is it a serious problem?
- What would you recommend to help the man urinate?
- What about the fever? Is it a sign of infection?
- Is the man taking a safe medicine?
- What other treatments or medicines would be helpful?
- What would you have done if you had gone to the village to treat him?



To learn about the urinary system, how it works, and what could have caused the man to stop urinating, the health workers and students made a large cardboard model, based on the drawing on page 233 of *Where There Is No Doctor*. They used a large paper cup, a balloon, and some old tubing to form the different parts. The model shows how two different problems can block the urine in the bladder. To read about the signs and treatments of these problems, see *WTND*, pages 234 to 235.

An **enlarged prostate gland** can cause difficulty in urinating and even block urination completely if it swells and presses against the urinary tube.



A **bladder stone** can also block the urinary tube so that the person has difficulty passing urine—or cannot pass any at all. The students were asked, “What can be done in a case like this?”



After thinking for a while, one student suggested that if the person would lie down, maybe the stone would roll back and free the opening to the urinary tube like this: →



A bladder stone was, in fact, the cause of the man's problem. The health worker diagnosed and treated it correctly when he visited the village. (Later the man did need surgery to have other stones removed.)

Using their books, the student group tried to figure out answers to the questions at the bottom of page 21-16. The use of a real PATIENT REPORT together with the teaching aid made the class more effective.

HOW TO EVALUATE AND USE INFORMATION SOURCES

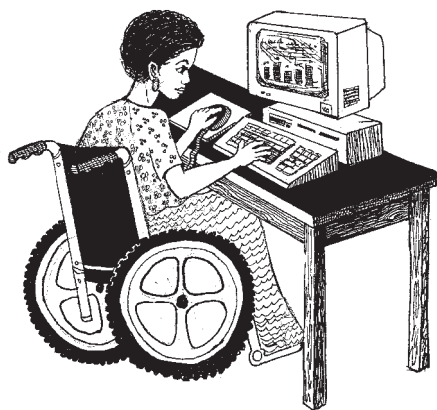
It is impossible for someone to keep the details of every health problem and treatment option in their head at all times, no matter their training. So people who provide health care at any level use information sources in their work every day. Because knowledge of health and healing also grows and changes regularly (see p. 17-13), health workers must regularly look up information to know what has changed. This means it is important that health workers know how to find reliable sources of health information.

In any health worker training course, you cannot teach great amounts of detailed information about a wide range of health problems. If you try to do this, students will forget or confuse important points and make many mistakes. On the other hand, if health workers learn to manage only a few health problems, they will have trouble winning the confidence of their communities. Training that includes finding reliable sources of information and using them in problem-solving situations can prepare health workers to handle many different conditions. It also helps them show others how to find and use trustworthy sources of health information.

Finding health information

People get health information from many sources. Some communities have their own understandings about health conditions and practices that have been passed down for many years. Some of this information is reliable while some may be less so. For more about home cures and popular beliefs about health, see Chapter 1 of *Where There Is No Doctor*.

Health information can be found in books and other written materials from libraries, government agencies, and public health or medical organizations. Health information is also available in a variety of digital forms on the internet. And in some places, health information is shared by radio and television.



Evaluating sources of health information

Evaluating a source of health information means deciding if it can be trusted. To do this you need to know:

- **who created the resource.** What do you know about the organization or person who created the content? Do they have the training or experience to provide accurate information on the subject? Has the information been reviewed by other people with knowledge about the subject? Is there a way to contact the creators with questions or feedback?
- **when the resource was produced.** Is a date provided when the resource was created or updated, and is the date within the past few years?
- **if the resource provides objective information.** Is the resource based on facts, or is it based on personal judgements? Is it trying to provide useful health guidance, or is it trying to sell a product or advocate for a cause? What information is provided about the goals of the organization or individual who created the resource?
- **where the resource got its information.** Does the resource list its own informational sources so you can look at and evaluate them yourself?
- **if the source uses artificial intelligence (AI).** AI is a technology that lets computers imitate human learning, decision making, and problem solving. Website chatbots are an example of AI. And human authors sometimes use AI tools for assistance when they research and write health information. While AI tools are designed to imitate human thought and language, the health information they provide is not verified by experts.

A health information source is more likely to be reliable when:

- it was created by an organization or individual with training or experience in the subject it is about.
- it was produced or updated within the last 5 years.
- its purpose is to objectively inform people about a health topic.
- it shows where it got its information so readers can read those sources for themselves.
- the source of the information is people, not AI.