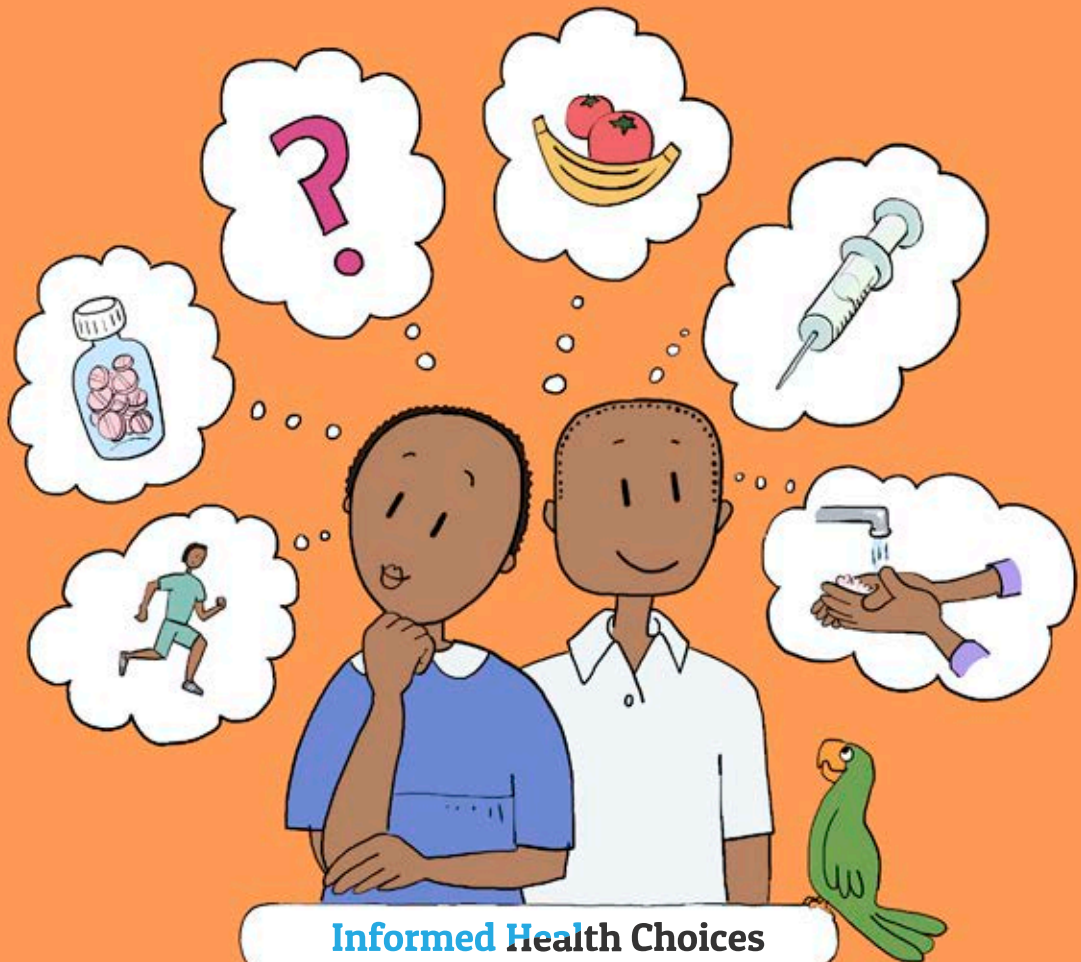


A health science book for primary school children

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The Health Choices Book:

Learning to think carefully about treatments



Title The Health Choices Book: Learning to think carefully about treatments. A health science book for primary school children

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The Health Choices Book: Learning to think carefully about treatments

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A health science book for
primary school children



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1

Health, treatments and effects of treatments

What you will learn in this lesson:

1. What “health” is
2. What a “treatment” is
3. What an “effect of a treatment” is
4. What a “health researcher” is
5. What this book is about

Keywords for this lesson:

- Your **HEALTH** is how well your body and mind are.
- A **TREATMENT** is something you do for your health.
- An **EFFECT** of a treatment is something that a treatment makes happen.
- A **HEALTH RESEARCHER** is someone who carefully studies health to find out more about health.

Health

Your health is important.

Your **health** is how well your body and mind are. If you are free from sicknesses and injuries, your health is good. If you are sick or injured, your health is bad.

When your health is good, there is much more that you can do. For example, you can play, learn and sleep well.



Discussion:

What are some sicknesses and injuries that you have had?

Treatments

A **treatment** is something you do for your health.

When people say “treatment,” most times they are talking about taking a medicine. However, in this book, a “treatment” is anything you do so your health stays good or gets better. There are many different types of treatments.



Using a medicine is a type of treatment.
For example, taking a tablet, getting an injection and using a cream are treatments.



Getting an operation is a type of treatment.
For example, removing a rotten tooth is a treatment.



Using equipment is a type of treatment.
For example, using crutches, a bandage and a toothbrush are treatments.

Exercising is a type of treatment. For example, running, playing basketball and dancing are treatments.



Eating or drinking something is a type of treatment. For example, eating a fruit or vegetable and drinking water are treatments.



Sometimes, we avoid something for our health. Therefore, *avoiding something* is a type of treatment. In other words, not doing something is a type of treatment. For example, not drinking milk is a treatment. Some people do not drink milk because they are allergic to milk. When someone is allergic to something, that something makes them sick. It does not make everyone sick.



Discussion:

What are some treatments that you have used?

Effects of treatments

An **effect** of a treatment is something that a treatment makes happen.



A good effect is what happens when a treatment makes your health stay good or get better. Examples of good effects are reducing pain, curing a sickness and getting more energy.

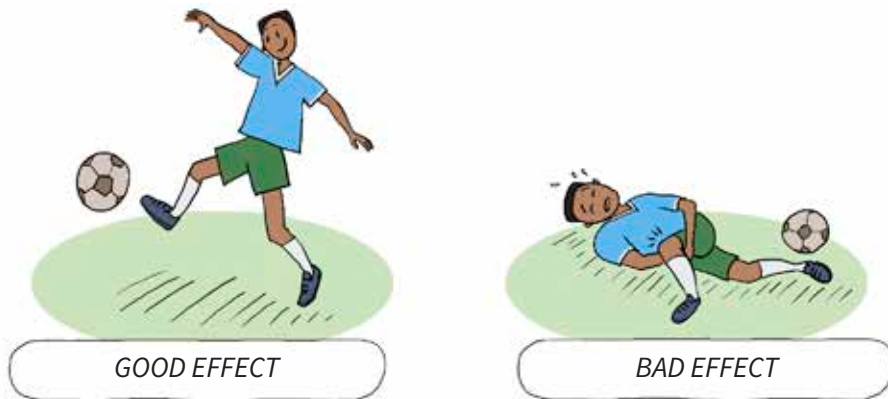


A bad effect is what happens when a treatment makes your health worse. Examples of bad effects are causing pain or sickness and reducing energy.

Most treatments have both good and bad effects on your health. For example, playing football has good and bad effects.

Playing football is a treatment that gives you more strength and energy. These are good effects.

However, sometimes, you get injuries from playing football as well. This is a bad effect.



Another example of treatments that have good and bad effects is drinking water. Without drinking enough clean water, you will not survive. However, drinking dirty water or drinking too much water will make you sick.

Discussion:

What are some other treatments that have both good and bad effects?
What are the good and bad effects of those treatments?

It is difficult to understand exactly how our bodies and minds work.
They have many parts that do many different things.

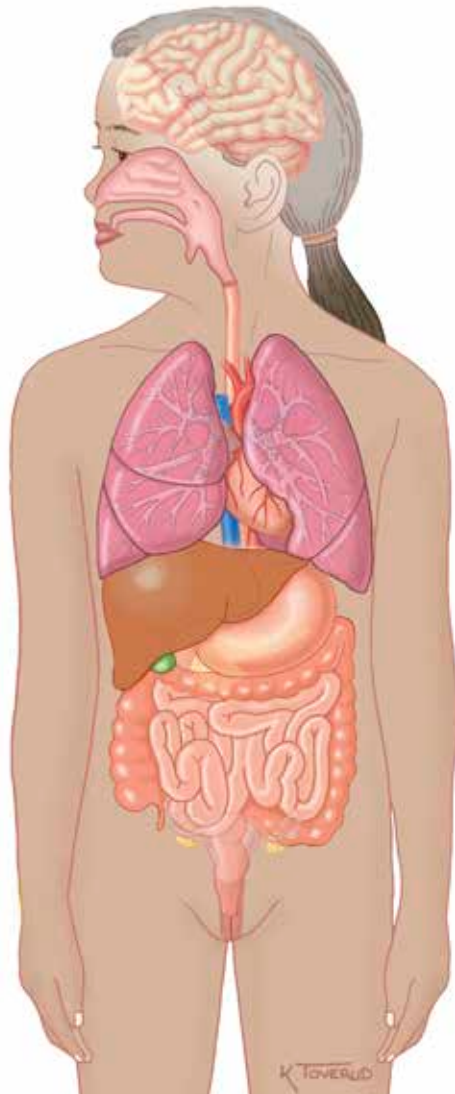


ILLUSTRATION: KARI C. TOVERUD CMI

Many treatments have a good effect on one part of the body, but a bad effect on another part of the body.

For example, some tablets make head pain go away faster, but those tablets give you stomach sickness as well.



Every person has a different body and mind, so many times the same treatment has different effects on different people.

For example, some people see better when they wear glasses. Other people see worse if they wear glasses.



Very few treatments have the same effects almost every time. For example, some medicines will make pain go away faster sometimes, but not every time.

Because of all this, we cannot be completely sure what the effects of most treatments will be when we use them. This is very important to understand.

What this book is about

There are effects of treatments that we can be very sure about.



For example, we can be very sure that sleeping in a mosquito net will stop people from getting malaria.



We can be very sure that washing hands will stop people from getting stomach sickness.



And we can be very sure that smoking cigarettes will kill people.

We cannot be sure about the effects of other treatments.

For example, we cannot be sure about the effects of many new medicines.

Most times, very few people will have used a new medicine because it is so new. The medicine can have different effects on other people than it did on the few people who have used it.

And it can take many years for some effects of the medicine to happen.



This book is about how to think carefully about treatments, so you can make better choices.

This book will teach you how to think carefully about treatments by asking **three types of questions**.

First, you will learn about the questions you should ask when someone says something about a treatment.

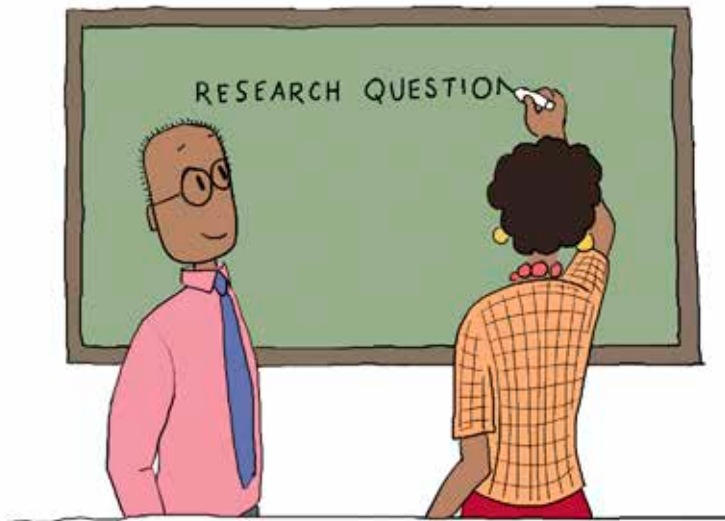
Sometimes, you make bad choices of treatments because you have been misled by something that someone said.

For example, some people used to say that smoking cigarettes has no bad effects. Some people even said that smoking cigarettes has good effects. Even some doctors said this! Many people were misled and died from smoking.



Second, you will learn about the questions that health researchers ask to find out more about the effects of treatments.

A **health researcher** is someone who carefully studies health to find out more about health. What health researchers find can help us make better choices of treatments.



Third, you will learn about the questions that you should ask when you are choosing whether to use a treatment.

Thinking carefully about treatments by asking questions will help you make better choices of treatments.

Making better choices of treatments is good for your health.



Adults, especially parents and doctors, make most choices for children.

This book will prepare you for making more choices of treatments as you grow older.

Both children and adults should get advice from doctors before making important choices of treatments.

However, even if your doctor is advising you, you should ask the questions that you will learn about in this book.

Asking the questions will help you and your doctor together make better choices for you.



What is in this book

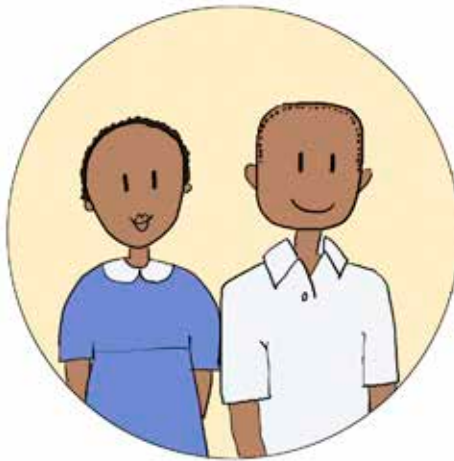
In this book there is activity instructions and exercises for each lesson.

The activities are for you to do with your classmates, led by your teacher.

The exercises are for you to do on your own.

At the end of the book there is a glossary. The glossary is a list of important words in this book with the meanings of those words. If you do not understand the meaning of a word when reading the book, check the glossary.

Finally, there is a story in this book about two children named John and Julie.



The story is a cartoon. A cartoon is a story with words and pictures put together.

Most of the words are in speech bubbles and thought bubbles.

A speech bubble tells or shows you what someone is saying.



A thought bubble tells or shows you what someone is thinking.




This first lesson is an introduction to the book. The last lesson is a review of what is most important to remember from this book.

In Lessons 2, 3 and 4, John and Julie learn that when someone says something wrong about a treatment, it can mislead you.

In Lessons 5, 6 and 7, John and Julie learn about how health researchers should study treatments to find out more about their effects.

In Lesson 8, John and Julie learn how to make choices using everything they have learned.



We hope you enjoy the book
and learn a lot from the lessons!

ACTIVITY



Instructions

Objective: Tell the difference between good and bad effects of the same treatment.

Children sitting at the same bench are a team.

The teacher has a list of effects of treatments.

Step 1: The teacher reads one of the effects from the list.

Step 2: Teams discuss whether the effect is good or bad.

Step 3: The teacher asks all teams whether they think the effect is good.

Step 4: Teams that think the effect is good stand up.

Step 5: All teams sit down.

Step 6: The teacher asks all teams whether they think the effect is bad.

Step 7: Teams that think the effect is bad stand up.

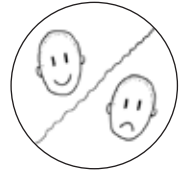
Step 8: All teams sit down.

Step 9: The teacher asks the children to explain why they think the effect is good or bad.

Step 10: Repeat.

There is an example on the next page. →

ACTIVITY



Example

Teacher: “An effect of swimming is ‘stronger muscles.’”

Teams discuss.

Teacher: “Who thinks ‘stronger muscles’ is a good effect?”

Teams that think so stand up.

Teacher: “Now, who thinks ‘stronger muscles’ is a bad effect?”

Teams that think so stand up.

Teacher: “‘Stronger muscles’ is a good effect! Why is it a good effect?”

Child: “If you have stronger muscles, you can do more! For example, you can carry more books or water!”

Teacher: “Very good!”

EXERCISE 1

Write what the words mean. Remember that the meanings of the words are in the back of the book.

EXAMPLE: What is a “cartoon”?

A cartoon is a story with words and pictures put together.

1. What is your “health”?

2. What is a “treatment”?

3. What is an “effect” of a treatment?

EXERCISE 2

Tick whether each point is true or false.

EXAMPLES:

Your health is important.

☒ True ☐ False

Your health is not important.

☐ True ☒ False

1. Most treatments have both good and bad effects.

☐ True ☐ False

2. This book tells you what treatments to use.

☐ True ☐ False

3. Drinking juice is a treatment.

☐ True ☐ False

4. Not drinking juice is a treatment.

☐ True ☐ False

5. We can be completely sure about the effects of most treatments.

☐ True ☐ False

John and Julie learn about BAD BASES for CLAIMS about treatments

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2

Claims based on someone's personal experience using a treatment

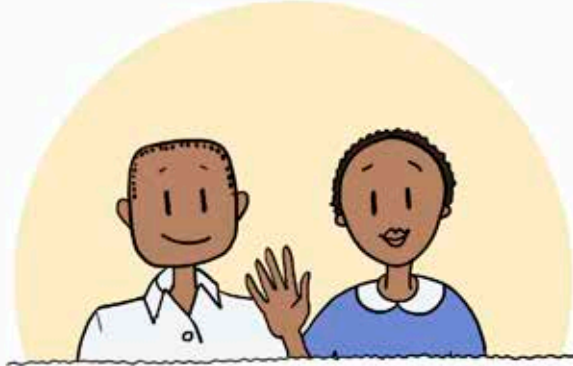
What you will learn in this lesson:

1. What a “claim” is
2. What the “basis” for a claim is
3. What an “unreliable” claim” is
4. Why it is important to ask what the basis is for a claim about the effects of a treatment
5. Why someone's personal experience using a treatment is a bad basis for claims about the effects of the treatment

Keywords for this lesson:

- A **CLAIM** is something that someone says that can be right or wrong.
- The **BASIS** *for a claim* is the support, foundation or reason for the claim.
- An **UNRELIABLE** *claim* is a claim with a bad basis.
- A **PERSONAL EXPERIENCE** *using a treatment* is something that happened to someone after using a treatment.

People in this lesson



JOHN and JULIE

John and Julie are brother and sister.



MAMA

Mama is John and Julie's mother.



KASUKU

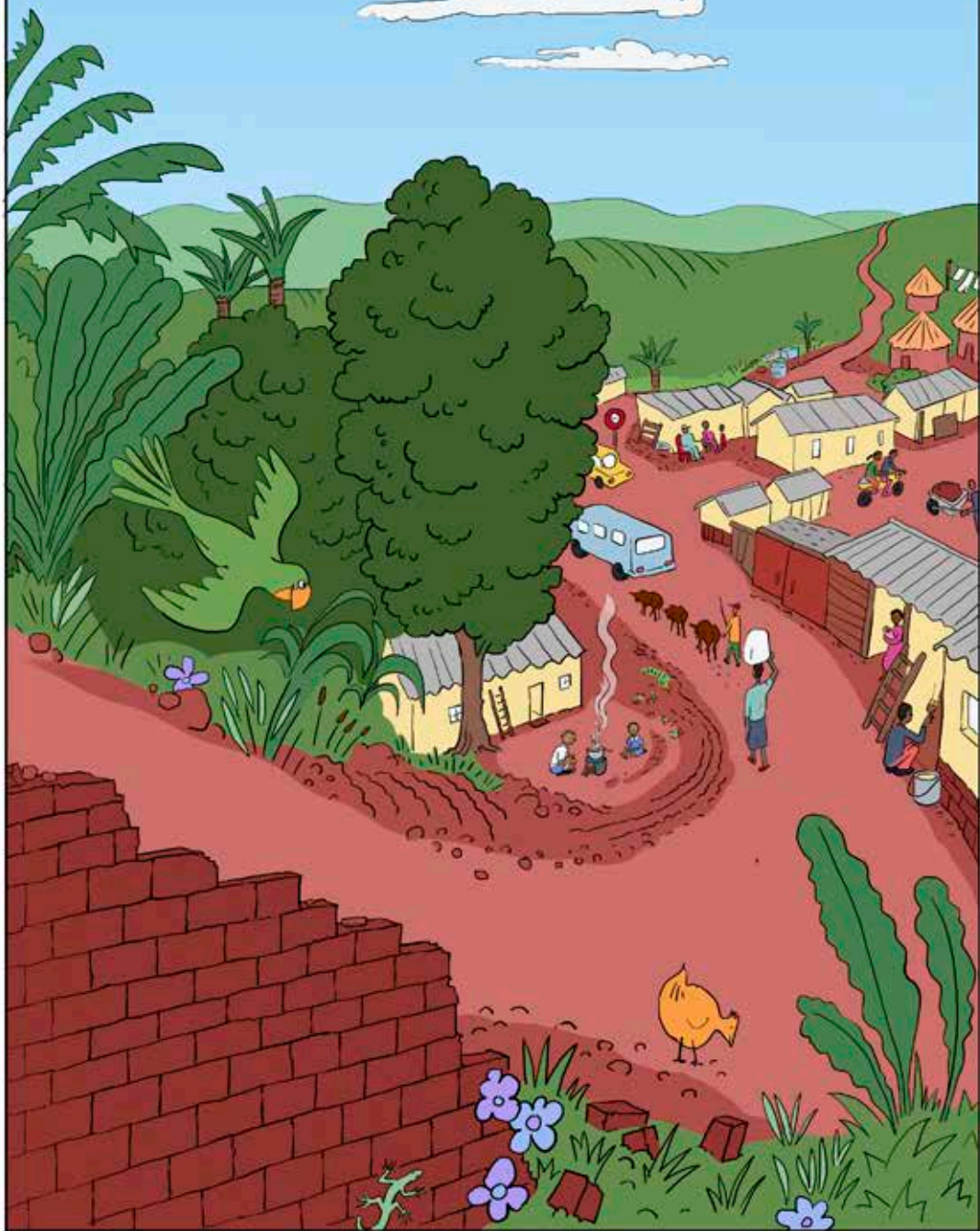
Kasuku is a troublemaker who repeats things people say without thinking carefully.

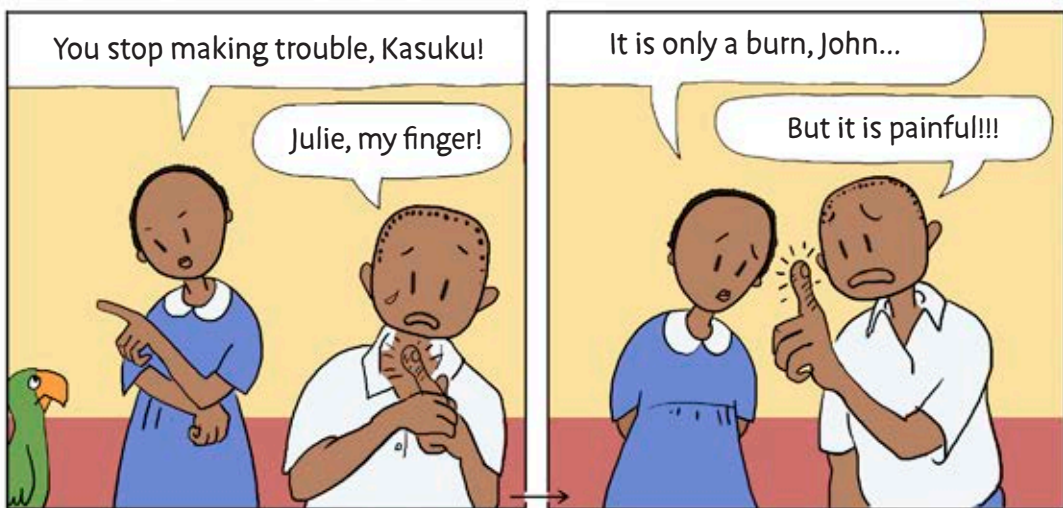
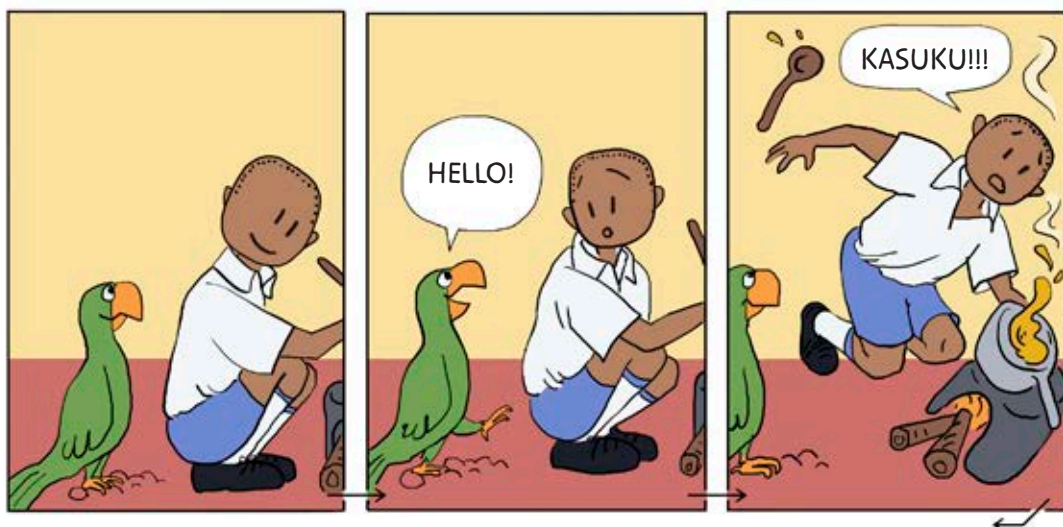


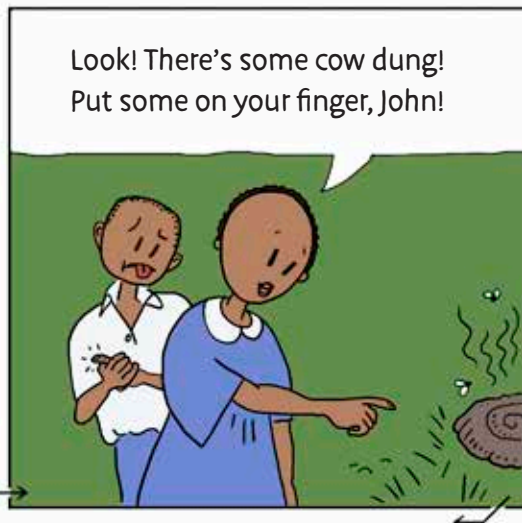
PROFESSOR CONNIE COMPARE and PROFESSOR FRANCIS FAIR

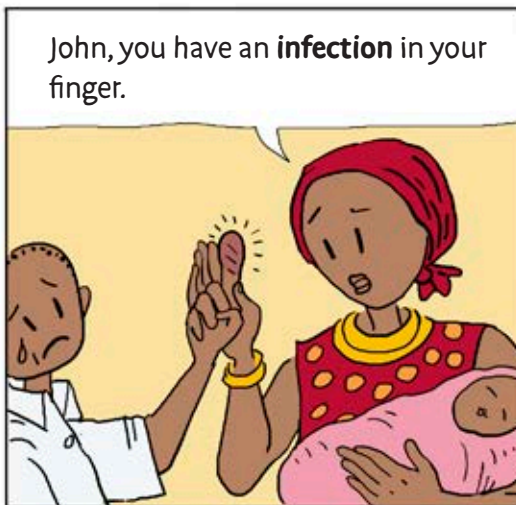
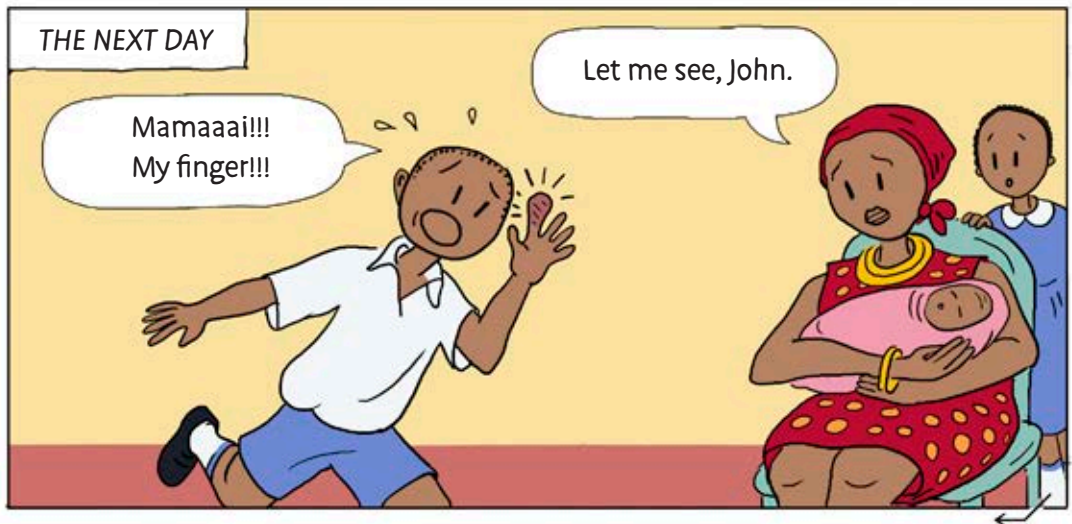
*Professor Compare and Professor Fair are teachers and health researchers at the university.
They are also doctors at the clinic.*

JOHN AND JULIE'S VILLAGE







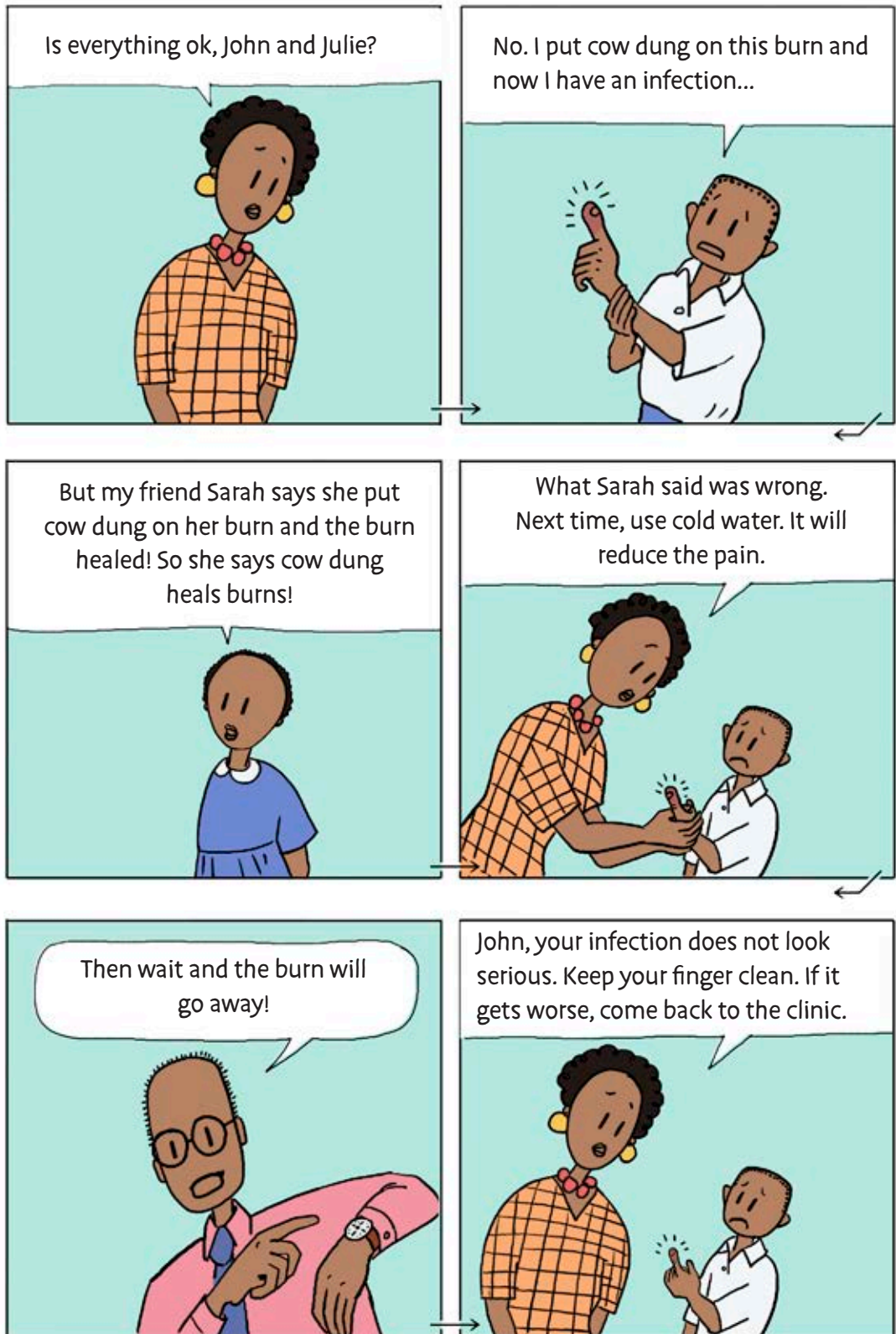


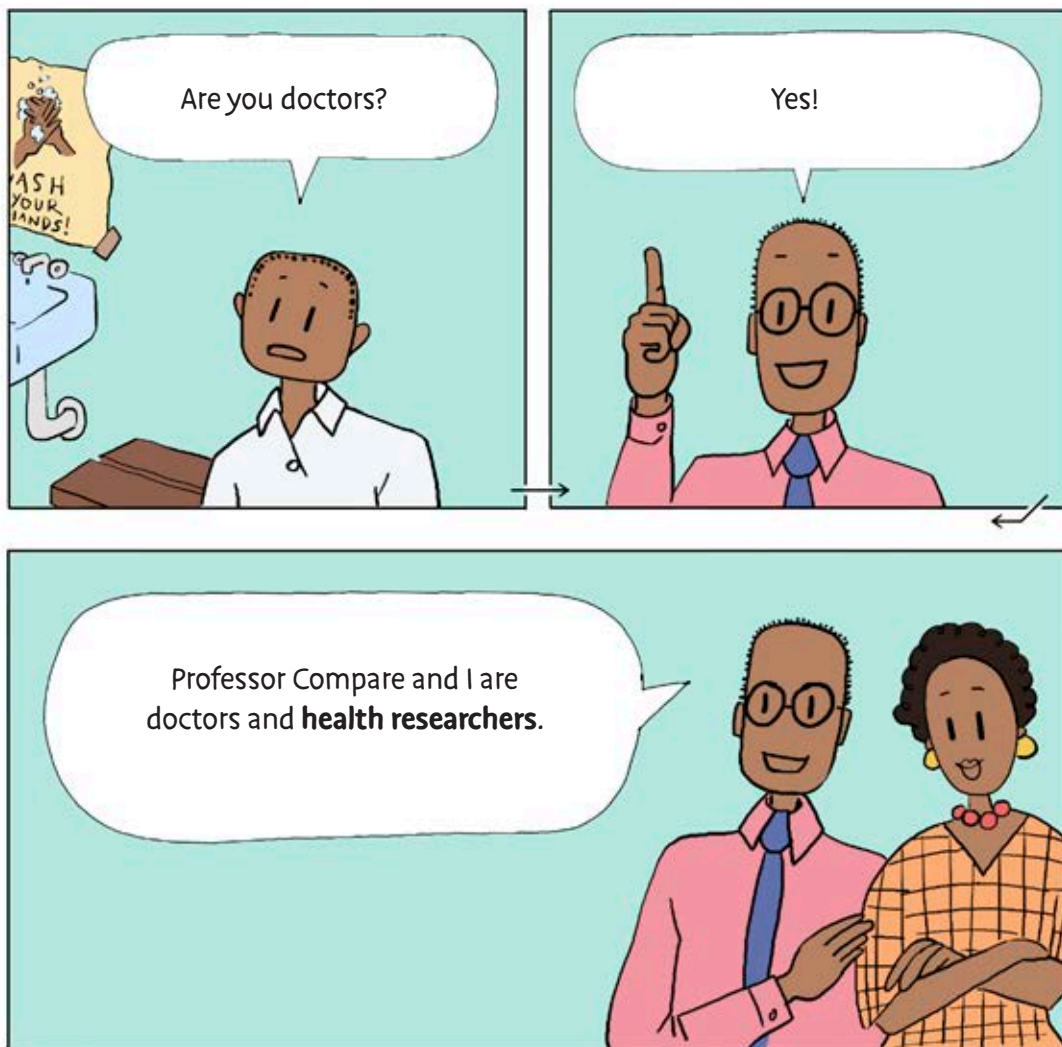
An **INFECTION**

is a disease caused by germs.

IN LUGANDA: "Obulwadde"

IN KISWAHILI: "Ambukizo"



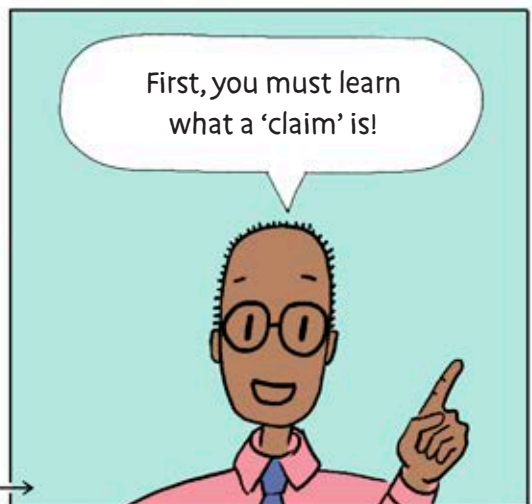
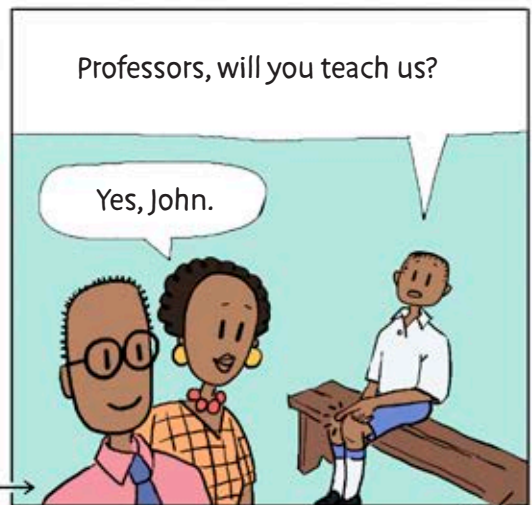


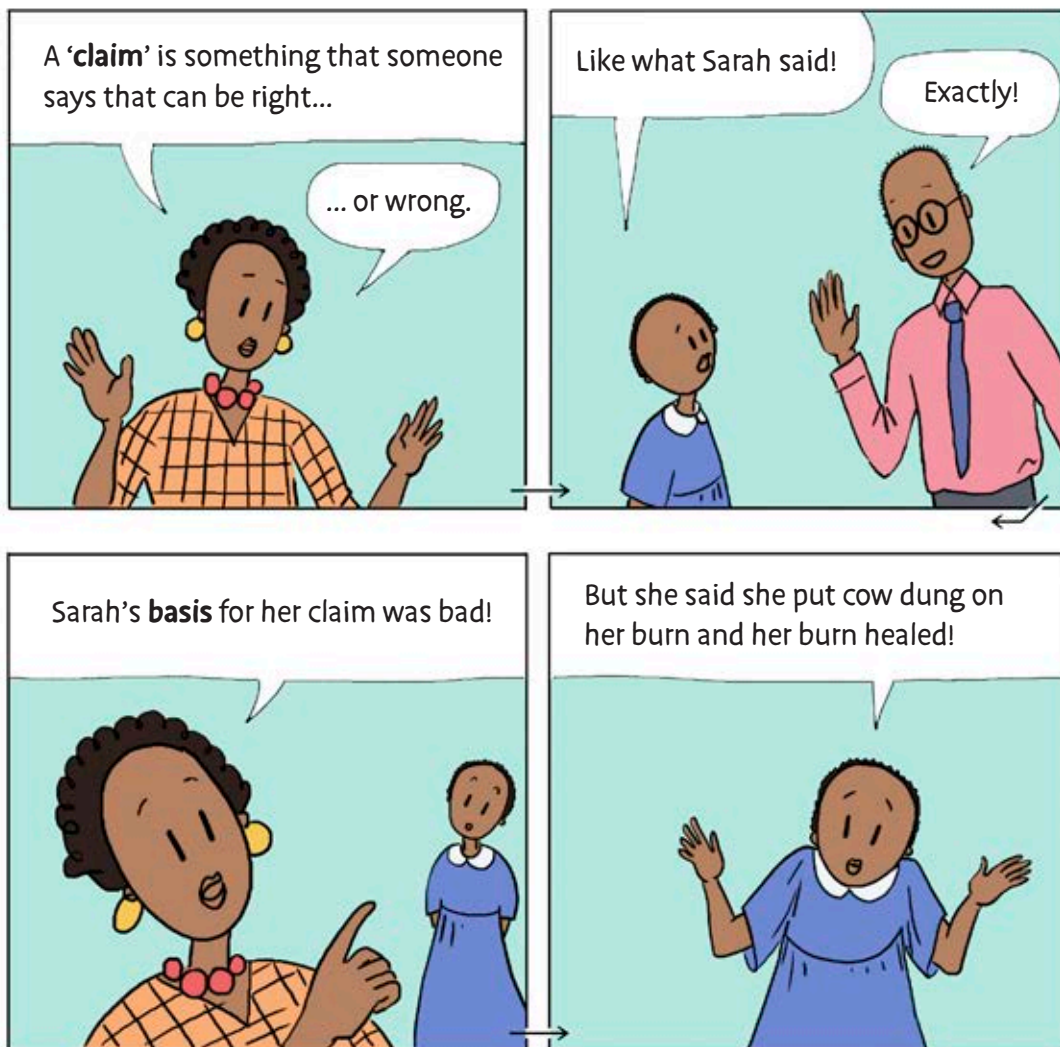
A **HEALTH RESEARCHER**

is someone who carefully studies health to find out more about health.

IN LUGANDA: “Abasawo abakugu abanoonyereza kuby’obulamu”

IN KISWAHILI: “Mdadisi wa afya”





A **CLAIM**

is something that someone says that can be right or wrong.

IN LUGANDA: "Ekintu ekyogerwayogerwa"

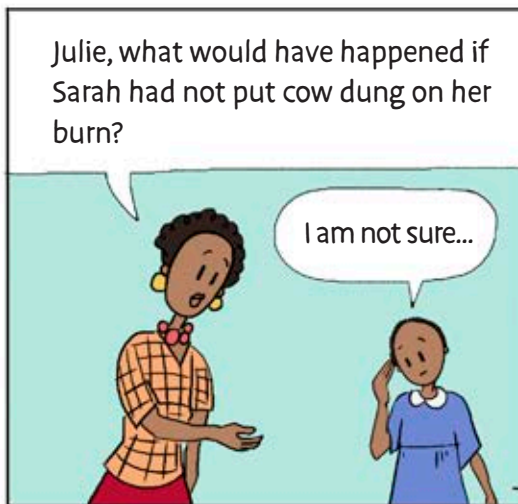
IN KISWAHILI: "Madai"

The **BASIS** for a claim

is the support, foundation or reason for the claim.

IN LUGANDA: "Esonga esinziirwako ekyogerwayogerwa"

IN KISWAHILI: "Uasili"



If the basis for a claim is bad, then the claim is **unreliable**. There are other bad bases for claims about treatments.



When you hear a claim, you must always ask: What is the basis for the claim? And, is it a good or a bad basis?



If you hear any other claims about treatments, write them down...



We will use them to teach you, next week! We will come visit your school.



An **UNRELIABLE** claim is a claim with a bad basis.

IN LUGANDA: “Ekyogerwayogera ku kintu nga tekyesigika”

IN KISWAHILI: “Kutokuwa na uhakika”

A **PERSONAL EXPERIENCE** using a treatment is something that happened to someone after using a treatment.

IN LUGANDA: “Ekintu ky’oyiseemu nga omuntu ssekinnoomu mukufuna obujjanjabi”

IN KISWAHILI: “Ujuzi”

EXTRA EXAMPLES

These are extra examples of what you learned in the chapter.

Extra examples of why someone's personal experience of using a treatment is a bad basis for a claim about the effects of the treatment.

Extra example 1:

Raymond's claim: "I had the flu. I drank a glass of juice. The next day my flu was gone! Therefore, drinking juice cures the flu!"

Treatment: Drinking juice

Effect: Curing the flu

Basis for claim: Raymond's experience of his flu going away after drinking juice.

Explanation: Raymond's basis is bad, so his claim is unreliable. It is possible that his flu would have gone away without the juice.

Example 2:

Moreen's claim: "I bought some new shoes, last week. I wore the new shoes when I played netball, yesterday. I ran faster than all the other girls! The new shoes made me run faster!"

Treatment: Wearing new shoes

Effect: Running faster

Basis for claim: Moreen's experience of running faster than the other girls when wearing the new shoes

Explanation: Moreen's basis for her claim is bad, so her claim is unreliable. It is possible that she would have run faster than the other girls without the new shoes. For example, it is possible that the other girls were tired or that the fastest girls were not playing.

ACTIVITY



Instructions

Objective: Recognise when someone is making a claim about the effects of a treatment.

The teacher has a story.

Step 1: The teacher begins to read the story.

Step 2: Whenever someone in the story makes a claim about the effects of a treatment, children must stand up and shout, “Claim!”

Step 3: The teacher asks the children to explain why they think the person in the story was making a claim about the effects of a treatment.

Step 4: The teacher continues reading the story.

There is an example on the next page. →

ACTIVITY



Example:

Teacher: “John and Julie are playing football with friends... John falls and cuts his leg on a rock... Arthur, one of John and Julie’s friends, tells John that putting some mud on the cut will make it heal faster...”

Children: “CLAIM!”

Teacher: “You are right! Now, why was this a claim about the effects of a treatment?”

Child: “Because putting mud on a cut is a treatment! And healing a cut is an effect!”

Teacher: “Exactly! Well done!”

EXERCISE 1

Write what the words mean. Remember that the meanings of the words are in the back of the book.

EXAMPLE: What is your “health”?

Your health is how well your body and mind are.

1. What is a “claim”?

2. What is the “basis for a claim”?

3. What is an “unreliable” claim?

4. What is a “personal experience” of using a treatment?

EXERCISE 2

Write which is the experience and which is the claim.

Example:

Sarah put cow dung on a burn and the burn went away. Therefore, she claims cow dung heals burns.

Sarah's experience:

Putting cow dung on her burn and the burn going away.

Sarah's claim:

Cow dung heals burns.

1. Andy says eating apples will make your teeth fall out because he once ate an apple and one of his teeth fell out.

Andy's experience:

Andy's claim:

EXERCISE 2

2. One time, when Daniel had a fever, he took a warm bath. After only one hour, his fever was almost all gone. Now, Daniel says taking a warm bath will cure a fever.

Daniel's experience:

Daniel's claim:

3. Last night, Christine slept for 12 hours! Today, she ran a race and came in first place! Because of this, Christine told the other runners that sleeping for a long time will make you run faster.

Christine's experience:

Christine's claim:

EXERCISE 3

In the back of the exercise book there are pages for collecting claims like John and Julie do in the story.

Whenever you hear a claim about the effects of a treatment at school, at home or anywhere else, fill in the claim there.

In Lesson 9, you will answer whether you think the claims are reliable.



3

Other bad bases for claims about treatments (Part 1)

What you will learn in this lesson:

Why these are bad bases for claims about the effects of a treatment:

1. How long the treatment has been used or how many people have used it
2. How much money the treatment costs or how new it is

People in this lesson



PROFFESOR COMPARE



PROFFESOR FAIR



JOHN



JULIE



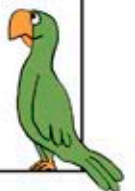
RUTH

*Ruth is one of
John and Julie's friends*

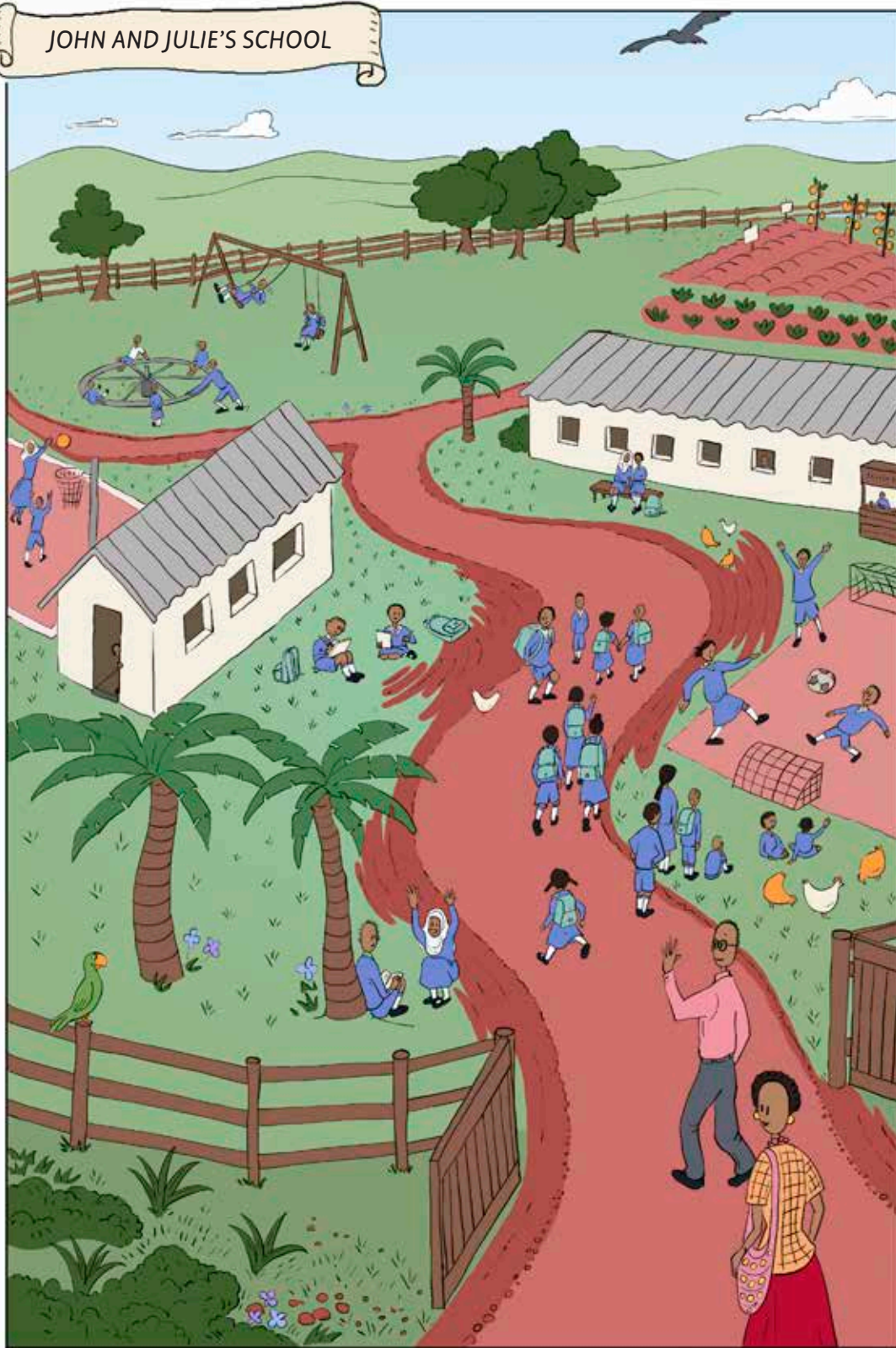


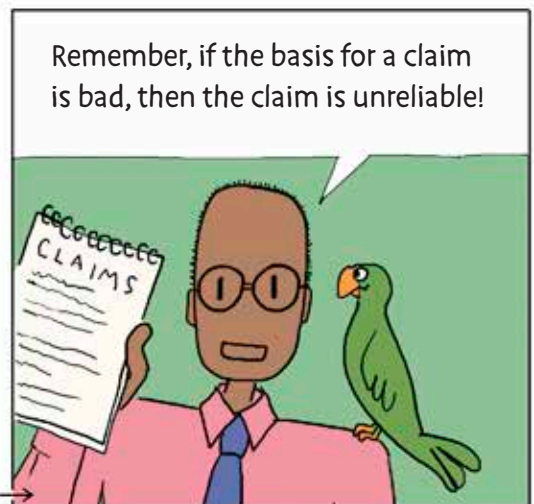
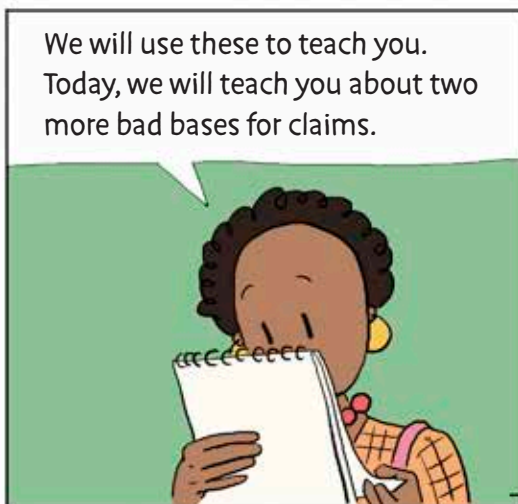
AHMED

*Ahmed is one of
John and Julie's friends.*



JOHN AND JULIE'S SCHOOL





RUTH'S CLAIM

Should we start with this one?

Yes.

Is Ruth here?

Here!

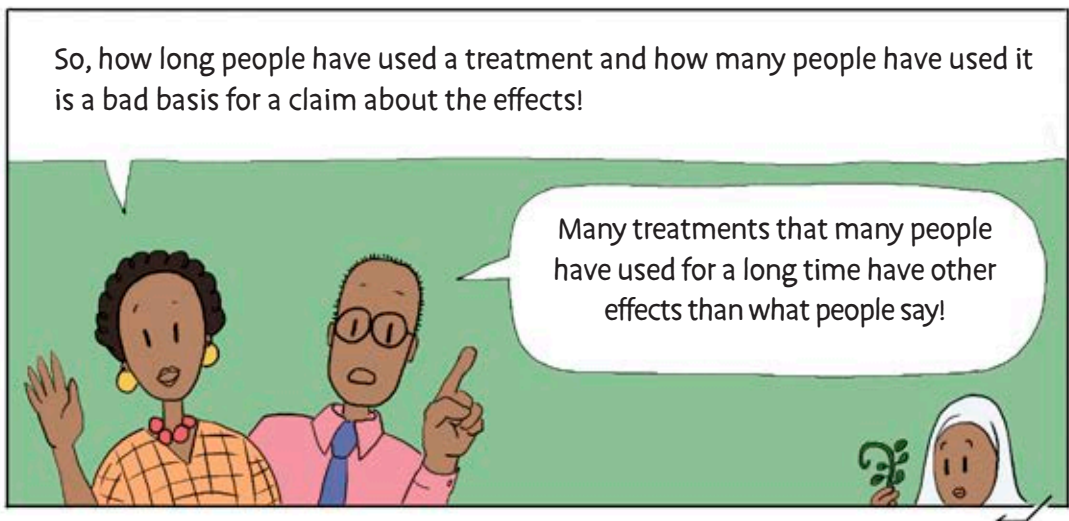
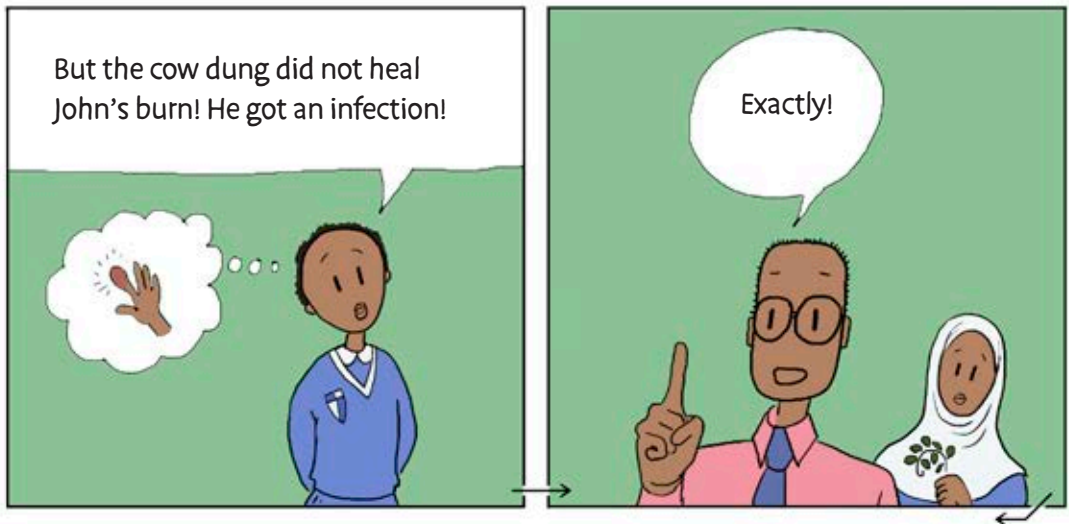
Good morning, Professors.
For a long time, many people have used this herb whenever they have been sick. Therefore, I am sure it cures sicknesses!

Ruth, you heard what happened when John put cow dung on his burn?

Yes...
He got an infection...

And you know that, for a long time, many people have put cow dung on burns?

Yes!



Extra example

Ronald's claim: "Drinking fish oil keeps you healthy! I am sure because lots of people, for many years, have drunk fish oil to stay healthy!"

Treatment: Drinking fish oil

Effect: Having better health

Basis for Ronald's claim: How long people have used fish oil and how many people have used it

Explanation: Ronald's basis for his claim is bad, so his claim is unreliable. It is possible that fish oil does not make your health better, even though many people have used it for many years.

AHMED'S CLAIM

And now this one?

Yes.

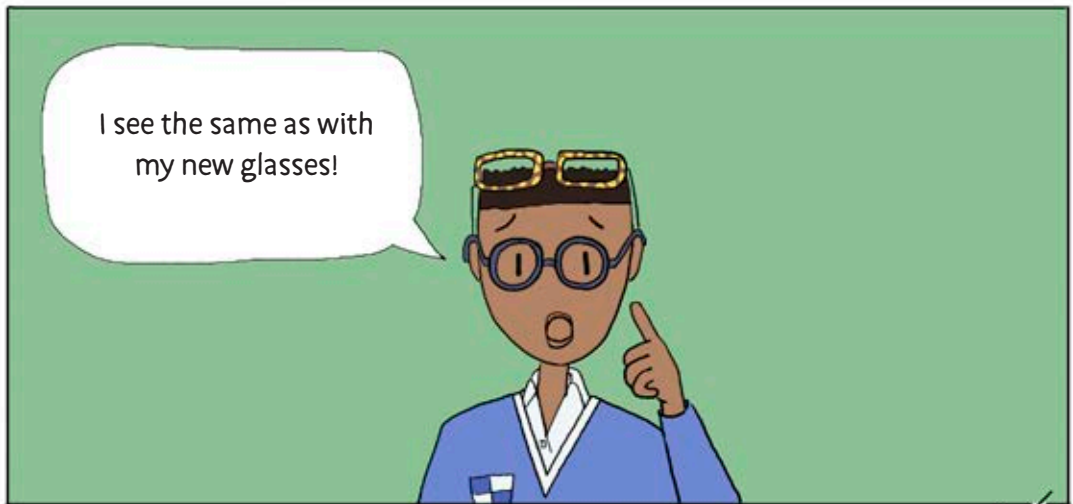
Is Ahmed here?

Here!

Good morning, Professors!
My mother bought me these
new glasses. They are better
than other glasses because
they are new and cost a lot of
money!

Ahmed, please put on your old
glasses.

Ok...



Extra example

Harriet's claim: "Super Soap stops more infections than other soaps because it is new and costs a lot of money!"

Treatment: Using Super Soap

Effect: Fewer infections

Basis for Harriet's claim: How new Super Soap is and how much money it costs

Explanation: Harriet's basis for her claim is bad, so her claim is unreliable. It is possible that the older soap is as good or better than Super Soap.

Professors, will you teach us about good bases for claims?

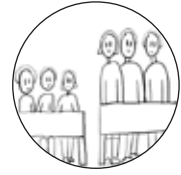
Yes, we will teach you.

But first we will teach you about two more bad bases!

Go to the market this week and write down any claims that you hear.

We will meet you there next week and teach you more!

ACTIVITY



Instructions

Objective: Explain the bases of different claims.

Children sitting at the same bench are a team.

The teacher has a list of claims about the effects of treatments.

Step 1: The teacher reads one of the claims about the effects of a treatment.

Step 2: Teams discuss what they think was the basis for the claim.

Step 3: The teacher asks which teams think that someone's personal experience was the basis for the claim.

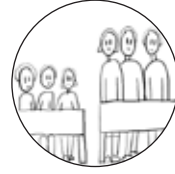
Step 4: Teams stand up if they think someone's personal experience was the basis for the claim.

Step 5: All teams sit down.

Step 6: The teacher asks which teams think that how long the treatment has been used or how many people have used it was the basis for the claim.

More instructions →

ACTIVITY



Step 7: Teams stand up if they think how long the treatment has been used or how many people have used it was the basis for the claim.

Step 8: All teams sit down.

Step 9: The teacher asks which teams think that how much money the treatment costs or how new it is was the basis for the claim.

Step 10: Teams stand up if they think how much money the treatment costs or how new it is was the basis for the claim.

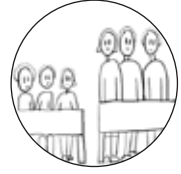
Step 11: All teams sit down.

Step 12: The teacher asks the children to explain their answers.

Step 13: Children raise their hands to explain their answers.

There is an example on the next page. →

ACTIVITY



Example:

Teacher: “George’s father always buys water at the store. George says drinking the water from the store is better than drinking other water because it costs a lot of money.”

Teams discuss.

Teacher: “Who thinks someone’s personal experience was the basis for George’s claim?”

Teams that think so stand up.

Teacher: “Who thinks how long the treatment has been used or how many people used it was the basis for George’s claim?”

Teams that think so stand up.

Teacher: “And who thinks how much money the treatment costs or how new the treatment is was the basis for George’s claim?”

Teams that think so stand up.

Teacher: “Please explain your answers.”

Child: “The basis was how much money the treatment cost! George said the water costs a lot of money!”

Teacher: “Right! It is a bad basis for the claim! This means the claim is unreliable! It is possible that the water from the store costs more money without being better than other clean water!”

EXERCISE 1

Tick whether each point is true or false.

Example:

Someone's personal experience using a treatment is a good basis for a claim about the effects of the treatment.

☐ True ☒ False

1. When people have the same claim for a long time, it is almost always right.

☐ True ☐ False

2. When people have made the same claim for many years, it is sometimes right and sometimes wrong.

☐ True ☐ False

3. If thousands of people make the same claim, they are right.

☐ True ☐ False

4. The more money that a treatment costs, the better it is.

☐ True ☐ False

5. Newer treatments are sometimes worse than older treatments.

☐ True ☐ False

EXERCISE 2

Write why the claims are unreliable.

Example:

Sarah put cow dung on a burn and the burn went away. Therefore, she claims cow dung heals burns.

The claim is unreliable because:

It is only based on Sarah's personal experience. It is possible that Sarah's burn would have gone away without her putting cow dung on it.

1. One time, when Michael had a fever, he took a cold bath. After only one hour, his fever was almost all gone. Now Michael says taking a cold bath cures a fever.

The claim is unreliable because:

2. There are different types of coffee at the shop. Mercy buys the one that costs the most money. She says it is better for your health because it costs more money.

The claim is unreliable because:



4

Other bad bases for claims about treatments (Part 2)

What you will learn in this lesson:

Why these are bad bases for claims about the effects of a treatment:

1. That someone selling the treatment said something about it
2. That an expert said something about the treatment

Keyword for this lesson:

- An **EXPERT** is someone who knows a lot about something.

People in this lesson



PROFESSOR COMPARE



PROFESSOR FAIR



JOHN



JULIE



MR. MWAKA



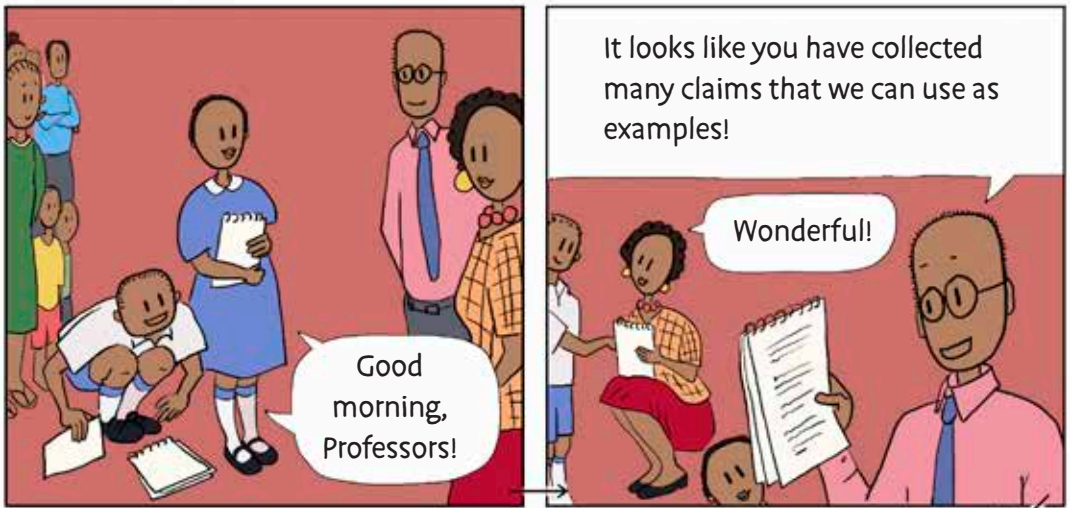
MS. NANTABA



MS. NAMULI

These are some friendly people that John and Julie met at the market.
They have all bought different treatments.

THE MARKET



MR. MWAKA'S AND MS. NANTABA'S CLAIMS

Let us use this one.

Good!

Are Mr. Mwaka and Ms. Nantaba here?

Good morning, Professors! I am Mr. Mwaka. As I told John and Julie, bananas are better for your health than mangoes. The woman who sold me these bananas said so!

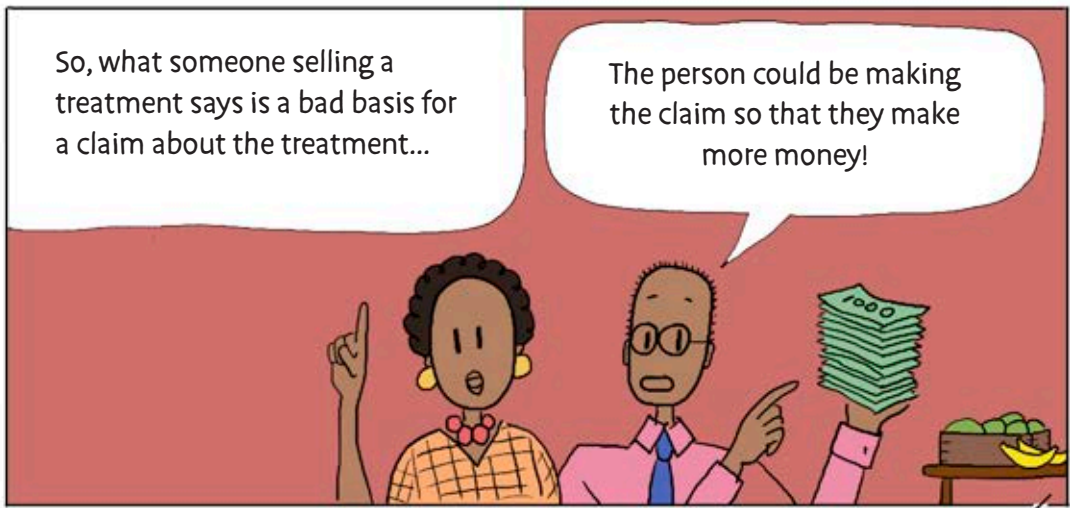
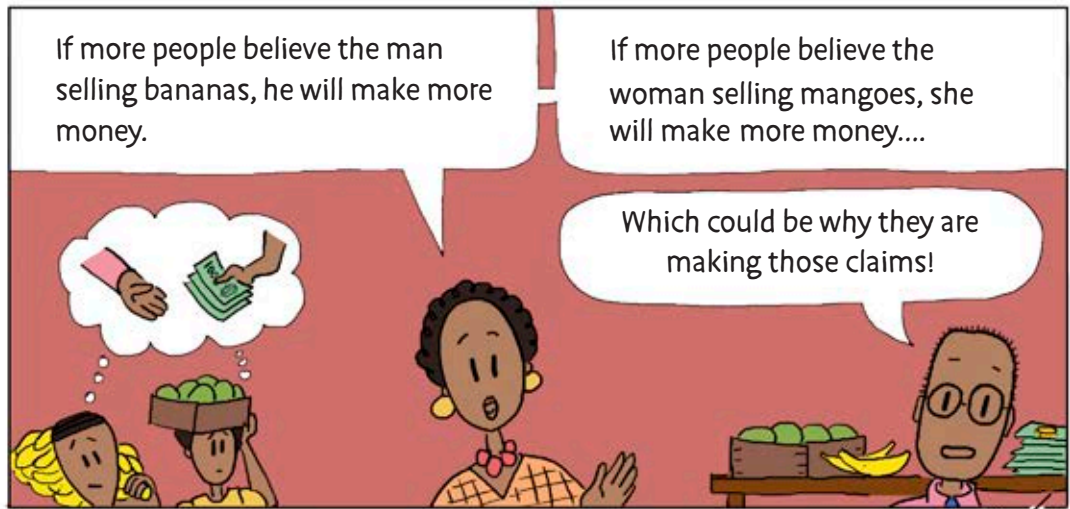
No! Professors! I am Ms. Nantaba. Mangoes are better for your health than bananas! The man who sold me these mangoes said so!

Mr. Mwaka, if people believe that bananas are better for your health, do you think that woman will sell more bananas?

Yes...

And Ms. Nantaba, if people believe mangoes are better for your health, do you think that man will sell more mangoes?

Yes...



Extra example

Ms. Acheng's claim: "This snake oil will cure any sickness because somebody who sells the oil said so on the radio!"

Treatment: Using the snake oil

Effect: Curing sicknesses

Basis: What the person selling the snake oil said on the radio

Explanation: Ms. Acheng's basis for her claim is bad, so her claim is unreliable. It is possible the person who is selling the snake oil says it cures any sickness because that person will make more money if people believe the claim.

MS. NAMULI'S CLAIM

Let us end with this one...

Yes.

Is Ms. Namuli here?

Here!

Good morning, Professors! This small electric machine makes a sound so mosquitoes go away! It stops you from getting malaria! I am sure because an **expert** told me! This expert knows a lot about mosquitoes!

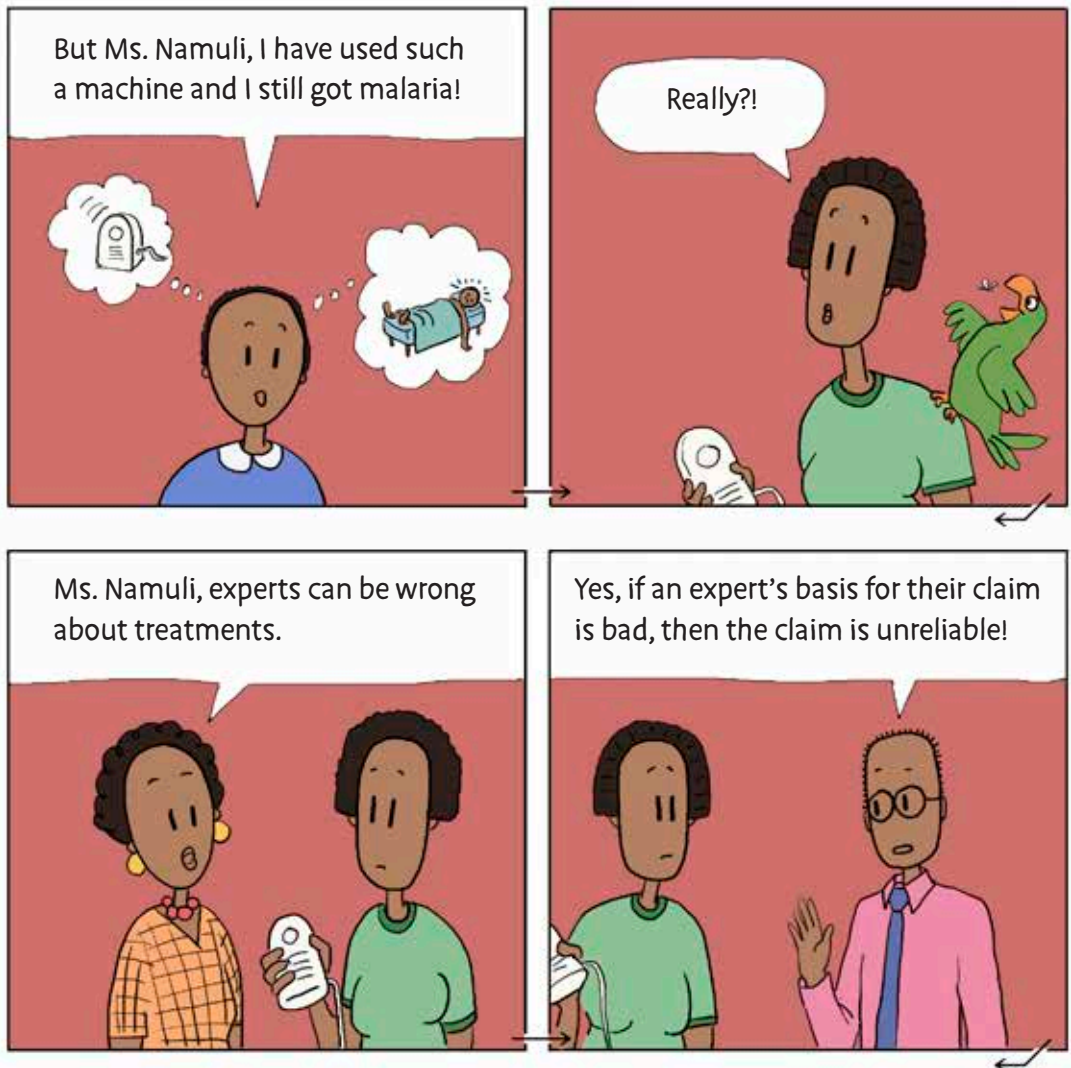


An **EXPERT**

is someone who knows a lot about something.

IN LUGANDA: “Kakensa” oba “Kafulu”

IN KISWAHILI: “Mtaalam”



Extra example

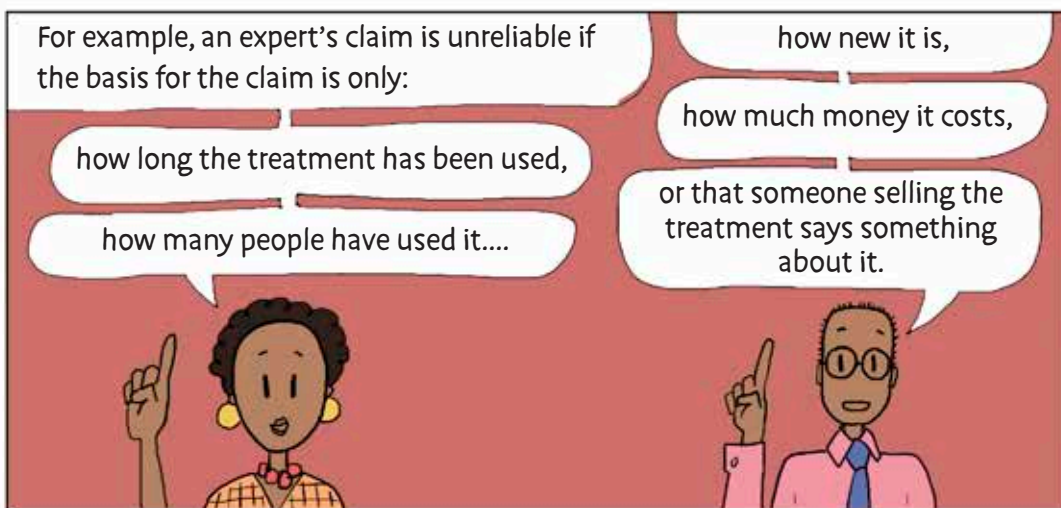
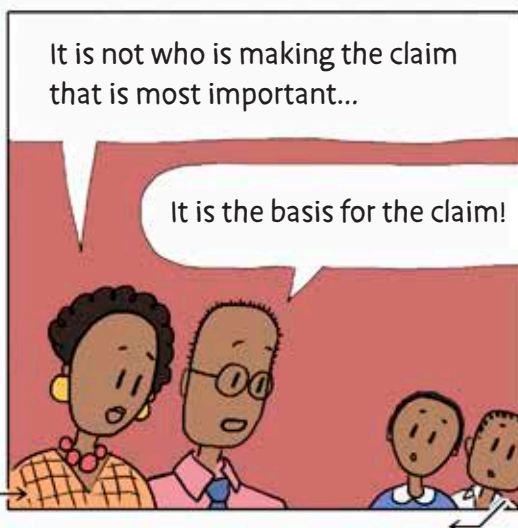
Mr. Opio's claim: "If you drink this herbal tea, it will make muscle pain go away! An herbalist told me so! The herbalist said many people take the tea for muscle pain!"

Treatment: Drinking the herbal tea

Effect: Reducing muscle pain

Basis for Mr. Opio's claim: What an expert said about the tea

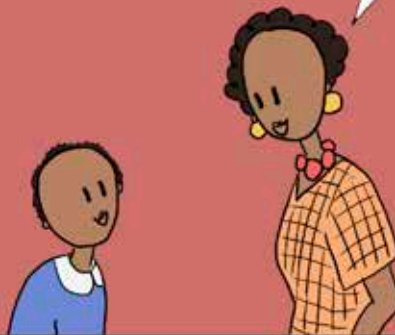
Explanation: Mr. Opio's basis for his claim is bad, so his claim is unreliable. It is only based on what the herbalist said and it is possible that the herbalist is wrong. The herbalist's claim is only based on how many people have used the treatment, which is a bad basis.



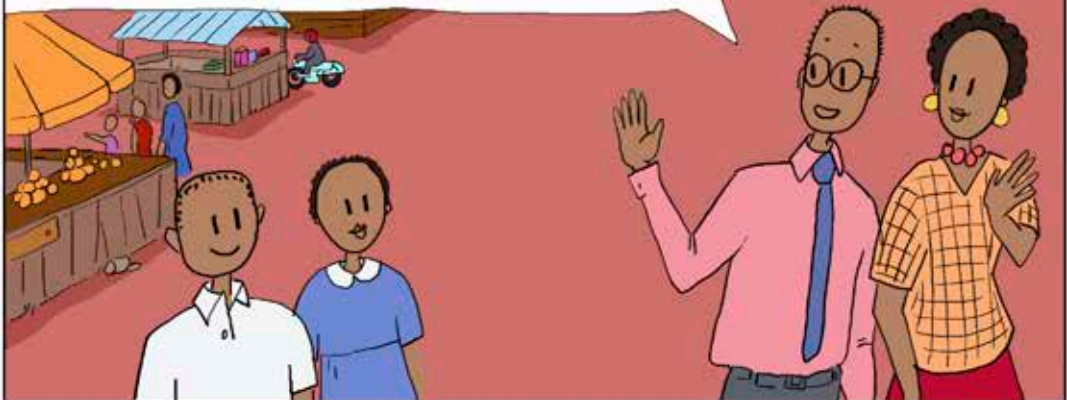
But Professors, what is a good basis for a claim about a treatment?!
When are claims reliable?!

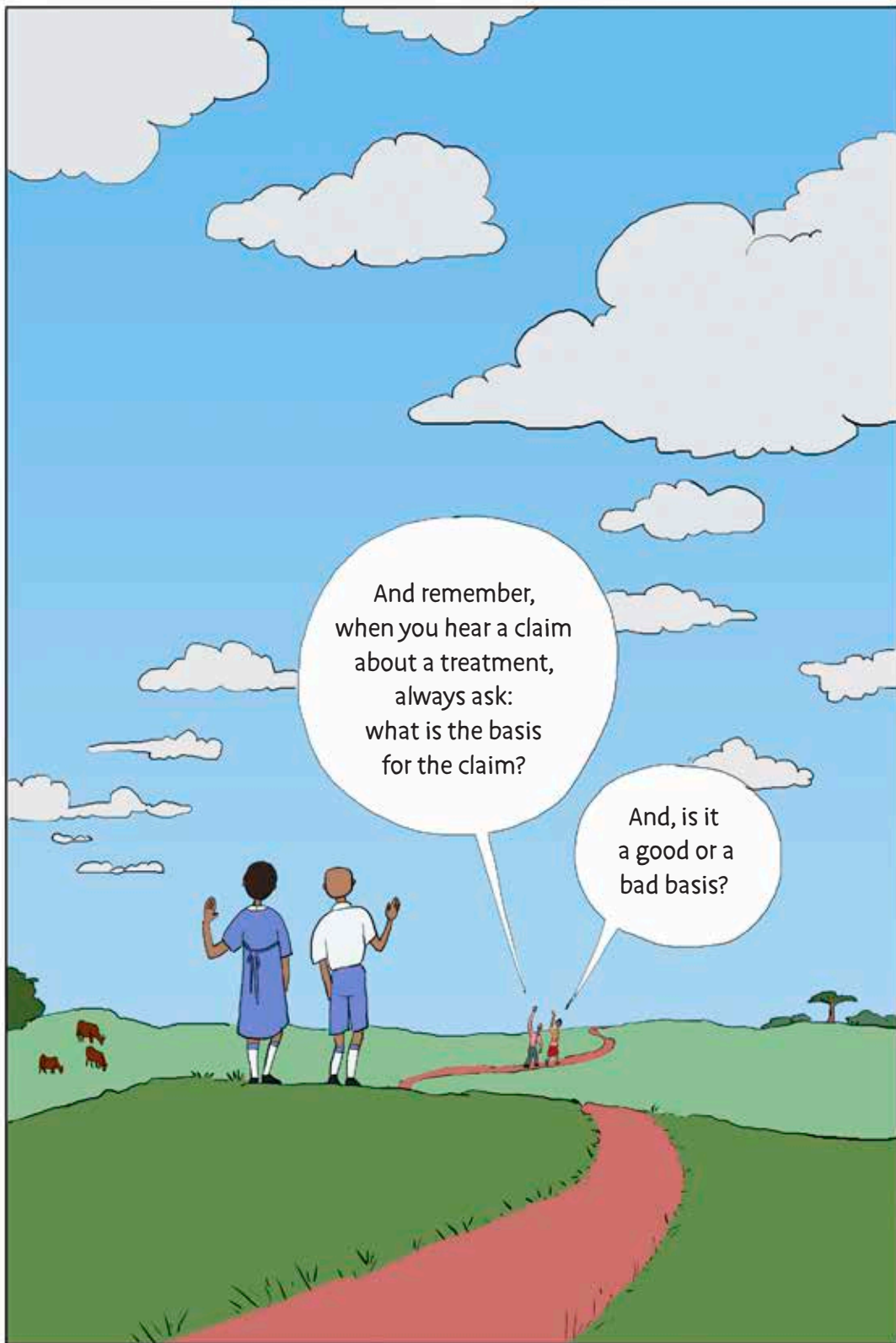


We will start to teach you about this, next week.



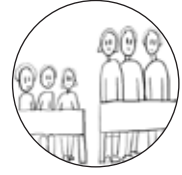
Come visit our office at the university!





And remember,
when you hear a claim
about a treatment,
always ask:
what is the basis
for the claim?

And, is it
a good or a
bad basis?



Instructions

Objective: Explain the bases of different claims.

This activity is the same as in Lesson 3, except teams must choose between 5 bases for claims about the effects of treatments.

Children sitting at the same bench are a team.

The teacher has a list of claims about the effects of treatments.

Step 1: The teacher reads one of the claims about the effects of a treatment.

Step 2: Teams discuss what they think was the basis for the claim.

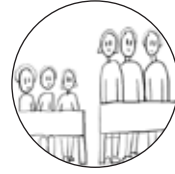
Step 3: The teacher asks the teams what they think was the basis for the claim.

Step 4: Teams stand up to give their answer, then sit back down, like in the activity for Lesson 3.

Step 5: Children raise their hands to explain their answers.

There is an example on the next page. →

ACTIVITY



Example:

Teacher: “Margaret’s football coach knows a lot about football and exercising. Margaret says stretching for half an hour after playing sports will stop you from getting injured. She says it is so because her coach said so.”

Teams discuss.

Teacher: “Who thinks someone’s personal experience was the basis for Margaret’s claim?”

Teams that think so stand up.

Teacher: “Who thinks how long the treatment has been used or how many people used it was the basis for Margaret’s claim?”

Teams that think so stand up.

Teacher: “Who thinks how much money the treatment costs or how new the treatment is was the basis for Margaret’s claim?”

Teams that think so stand up.

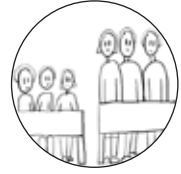
Teacher: “Who thinks that someone selling the treatment saying something about it was the basis for Margaret's claim?”

Teams that think so stand up.

Teacher: “Who thinks that an expert saying something about the treatment was the basis for Margaret's claim?”

Example continued →

ACTIVITY



Teams that think so stand up.

Teacher: "Please explain your answers."

Child: "The basis was an expert saying something about the treatment! Margaret said her claim was right because of what her coach said and her coach is an expert!"

Teacher: "Right! This means Margaret's claim is unreliable! It is possible that her coach was wrong!"

EXERCISE 1

Tick whether each point is true or false.

Example:

The newer a treatment is, the better it is.

☐ True ☒ False

1. New treatments are sometimes worse than old treatments.

☐ True ☐ False

2. Not all experts make reliable claims.

☐ True ☐ False

3. If an expert makes a claim based on a personal experience, the claim is unreliable.

☐ True ☐ False

4. The basis for the claim is more important than who is making the claim.

☐ True ☐ False

EXERCISE 2

Write why the claims are unreliable.

Example:

Alice eats potatoes everyday. She says it makes her stronger because many people have told her so.

The claim is unreliable because:

The basis is how many people have said that eating potatoes everyday makes you stronger. This is a bad basis for the claim.

1. Christopher has bought some candles. He says that if you use the candles, you will not get malaria. He says it is right because people who sell the candles say so.

The claim is unreliable because:



EXERCISE 2

2. Josephine says that eating soup will make the flu go away. She says it is true because a cook told her so. The cook knows a lot about foods.

The claim is unreliable because:

3. Rehema heard a fisherman say that eating boiled fish is better for your health than eating grilled fish. Rehema says the fisherman is right because he knows so much about fish.

The claim is unreliable because:

John and Julie learn
about COMPARISONS of treatments

.....





5

Comparisons of treatments

What you will learn in this lesson:

1. Why health researchers must compare a treatment to another treatment or no treatment

Keyword for this lesson:

- A **RELIABLE** claim is a claim with a good basis.
- To **COMPARE** *treatments* is to look at the differences between two or more treatments.
- A **RESEARCH QUESTION** is a question that researchers try to answer.

People in this lesson



PROFESSOR COMPARE



PROFESSOR FAIR



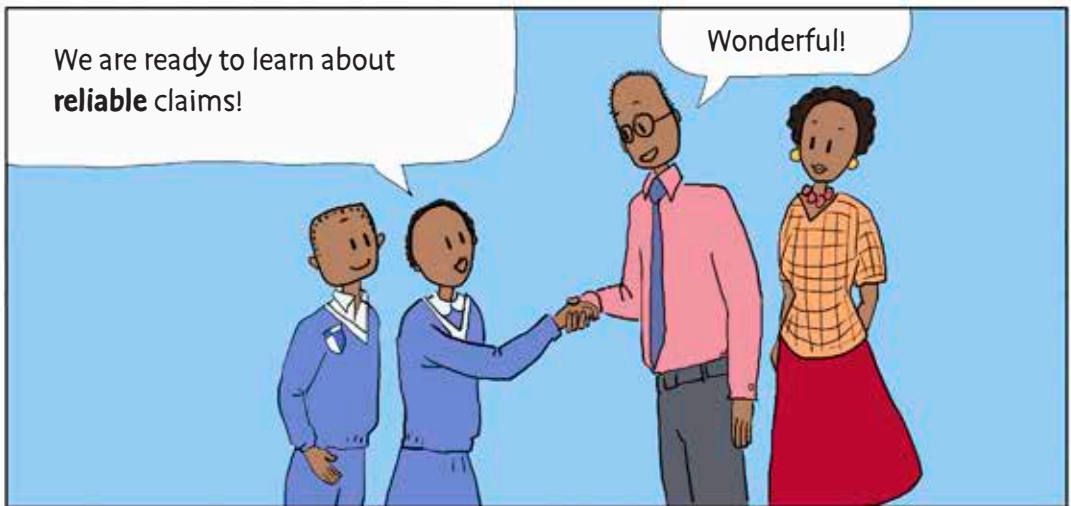
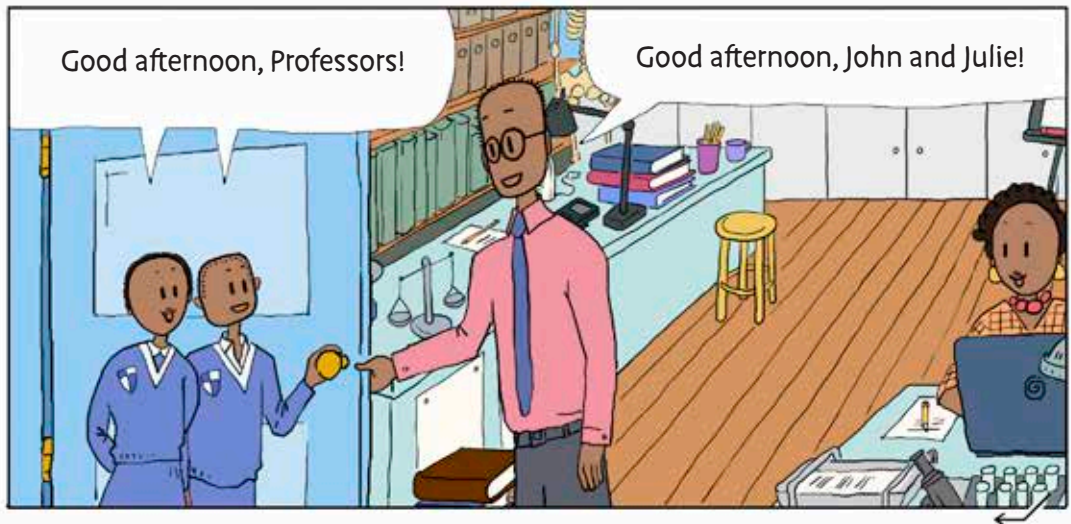
JOHN



JULIE

THE PROFESSORS' OFFICE

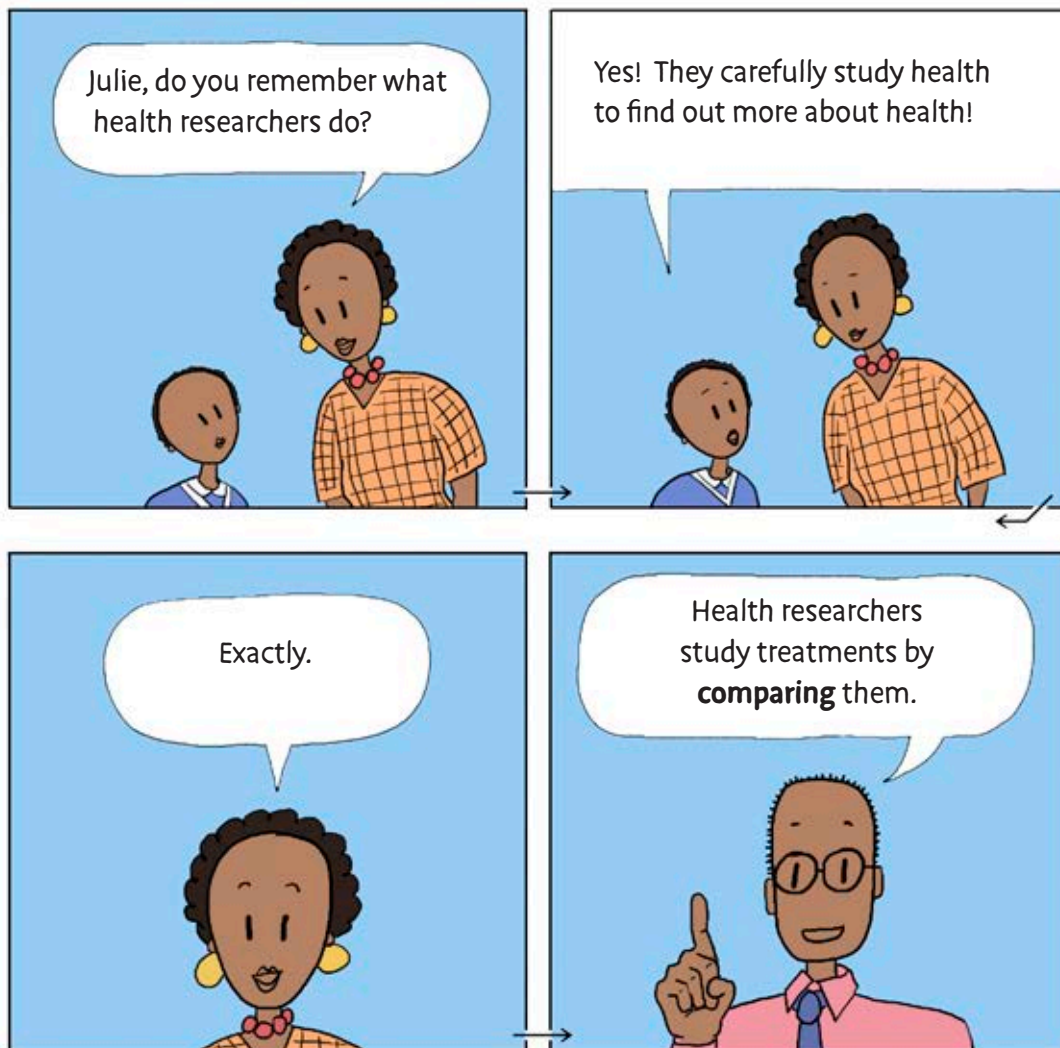




A **RELIABLE** claim
is a claim with a good basis.

IN LUGANDA: “Ekyogerwayogerwa ekyesigika”

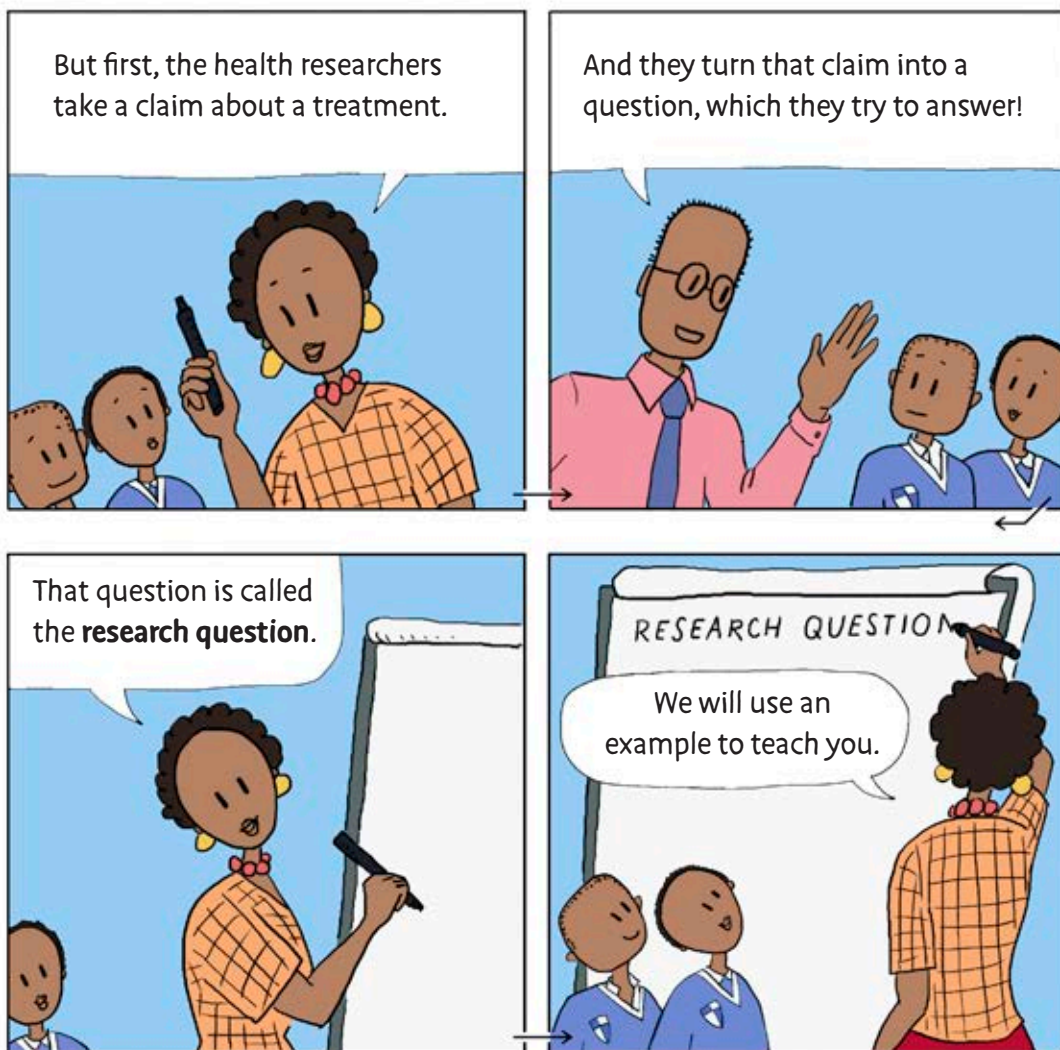
IN KISWAHILI: “Ya maana”



To **COMPARE** treatments is to look at the differences between two or more treatments.

IN LUGANDA: “Okugeraageranya obujjanjabi obumu n’obulala”

IN KISWAHILI: “Kulinganisha”



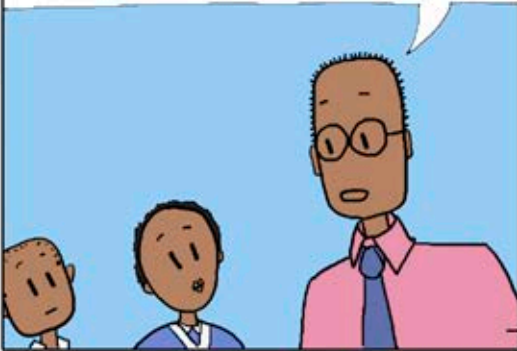
A **RESEARCH QUESTION**

is a question that researchers try to answer.

IN LUGANDA: “Ensonga enoonyerezebwo” oba “Ekibuuzo abanoonyereza kyebaba bagezaako okuddamu oba okuzuula” oba “Ensonga abanoonyereza gyebabeera bagezaako okwekenneenya”

IN KISWAHILI: “Swali la utafiti”

Do you remember Ms. Namuli's claim at the market?



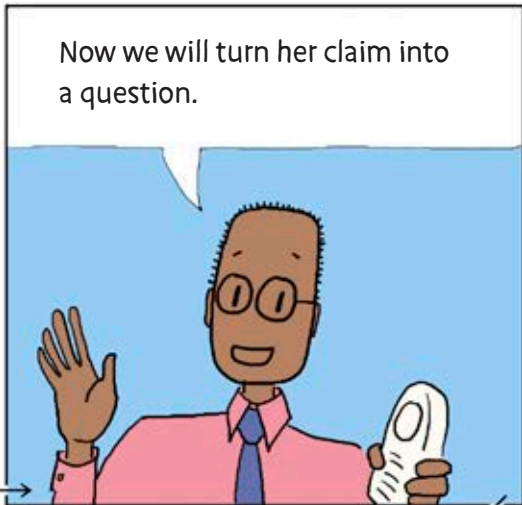
Yes, Ms. Namuli claimed that her machine will stop you from getting malaria!



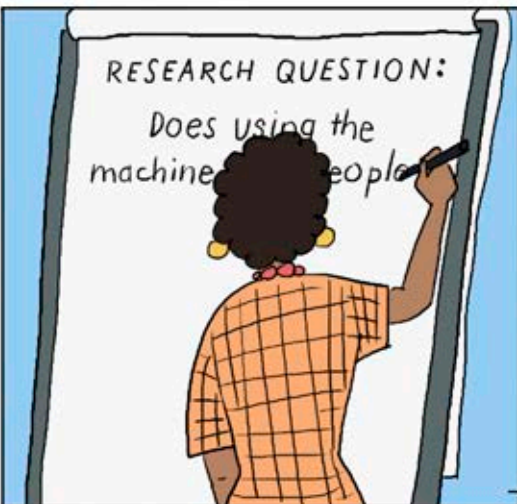
Exactly!



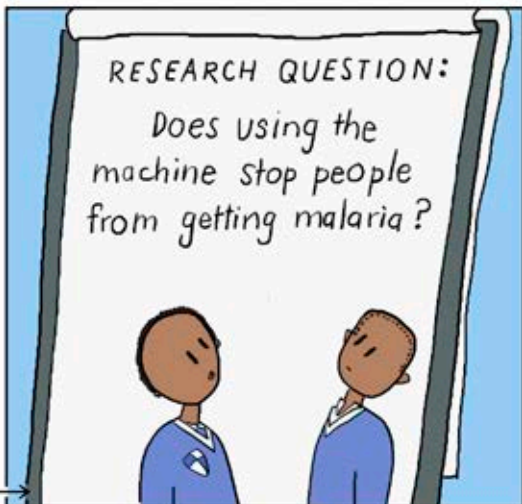
Now we will turn her claim into a question.



RESEARCH QUESTION:
Does using the
machine stop people



RESEARCH QUESTION:
Does using the
machine stop people
from getting malaria?



Health researchers have studied using the machine with the power on compared to using it with the power off.



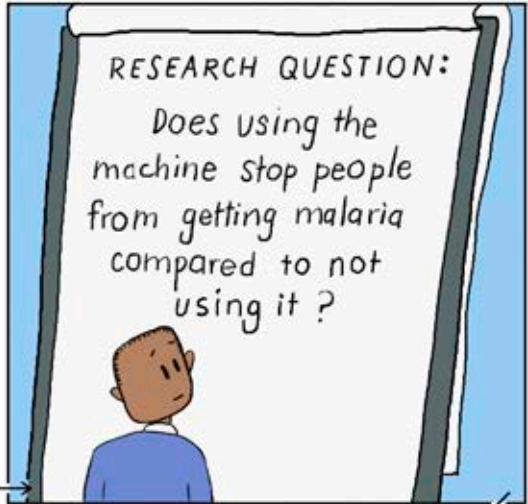
Using the machine with the power off is the same as not using the machine!



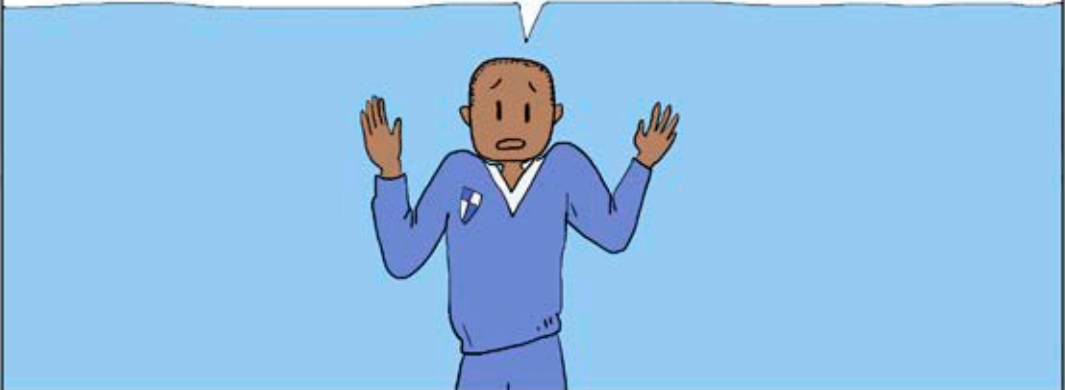
RESEARCH QUESTION:
Does using the machine stop people from getting malaria compared to not using it?

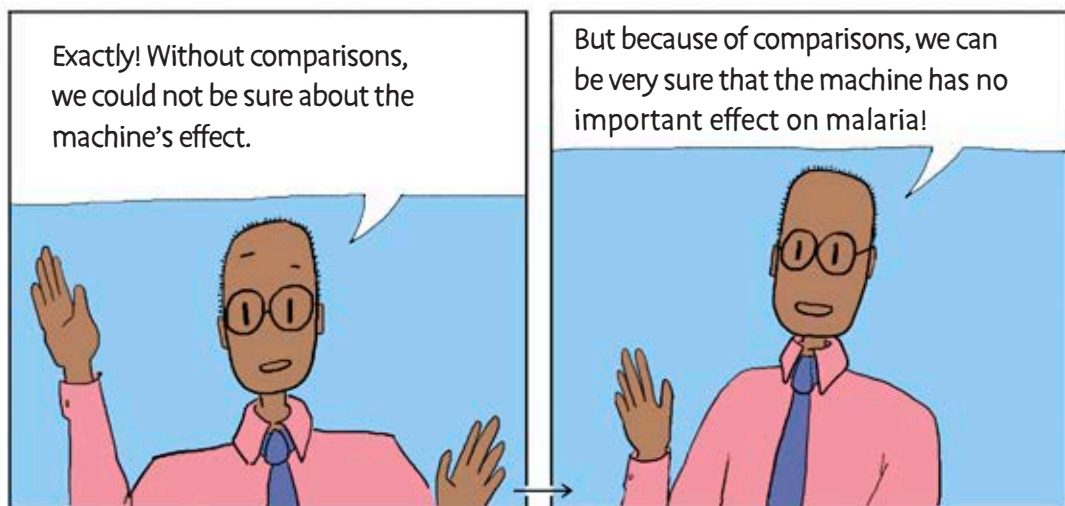
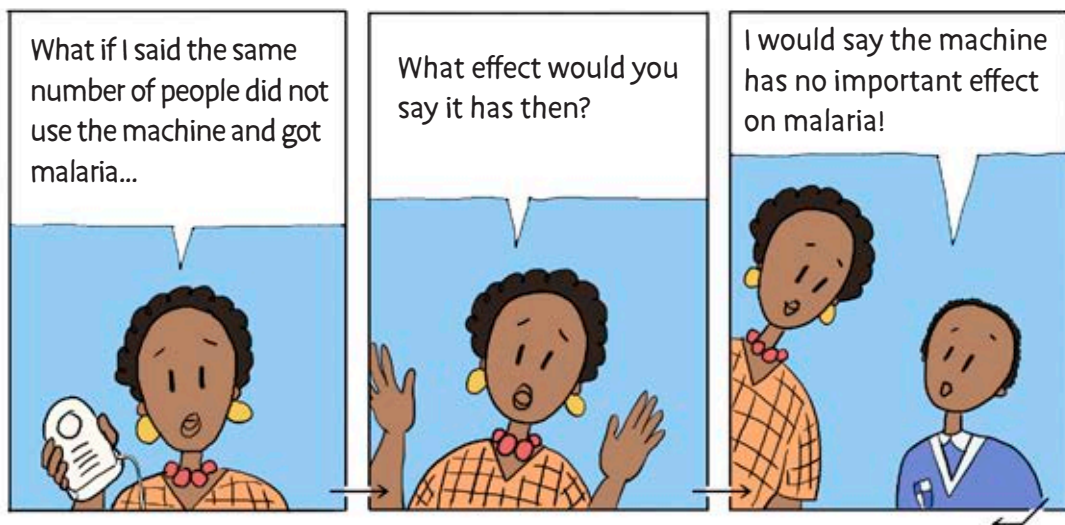
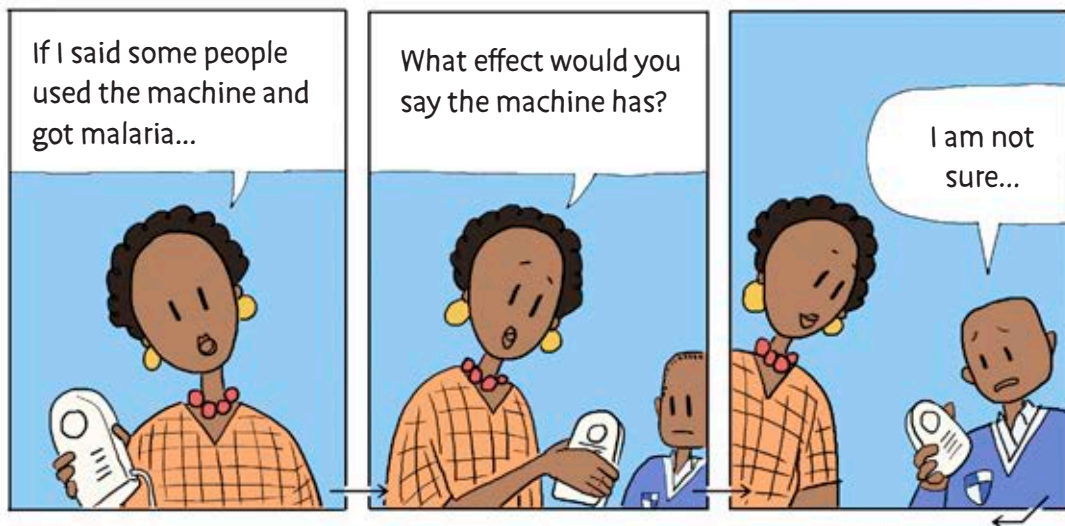


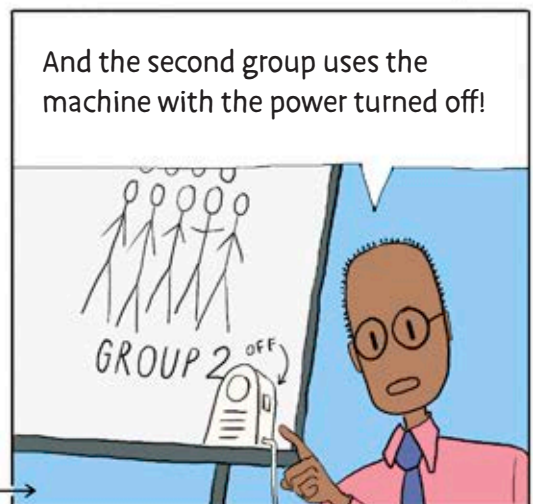
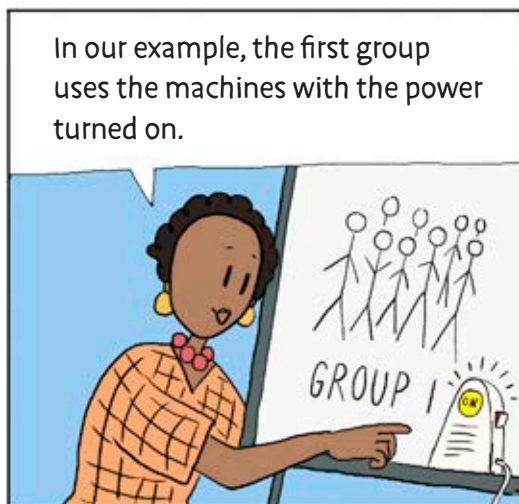
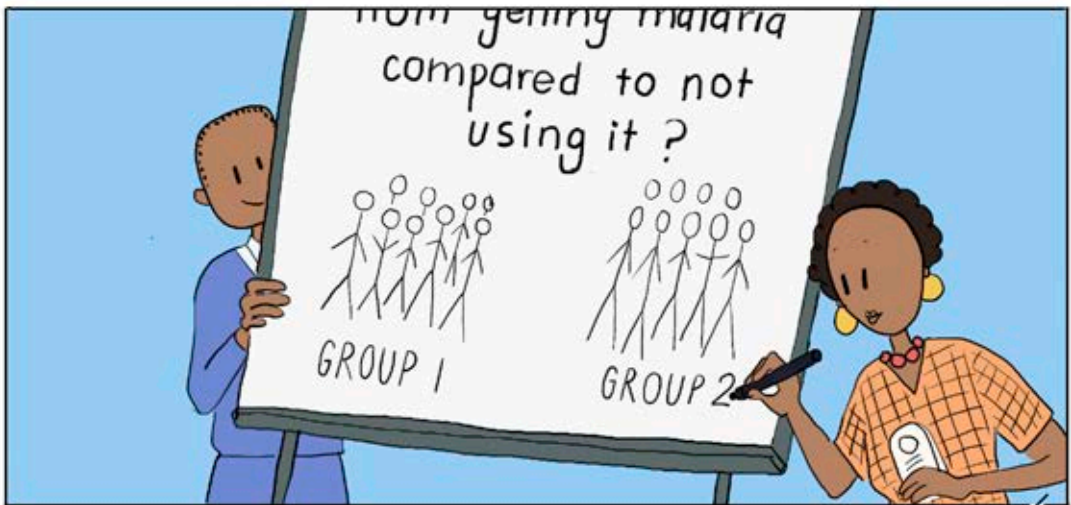
RESEARCH QUESTION:
Does using the machine stop people from getting malaria compared to not using it?



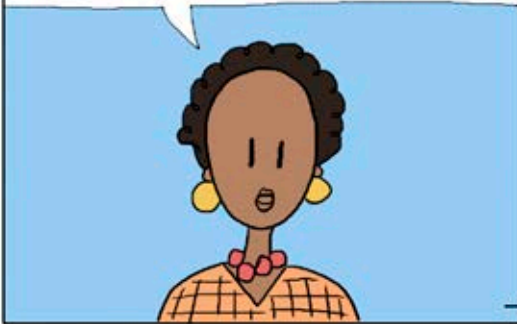
But why must health researchers make comparisons?



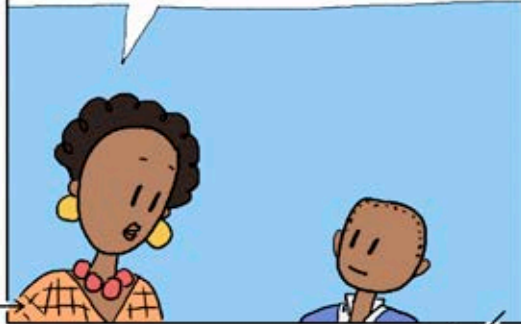




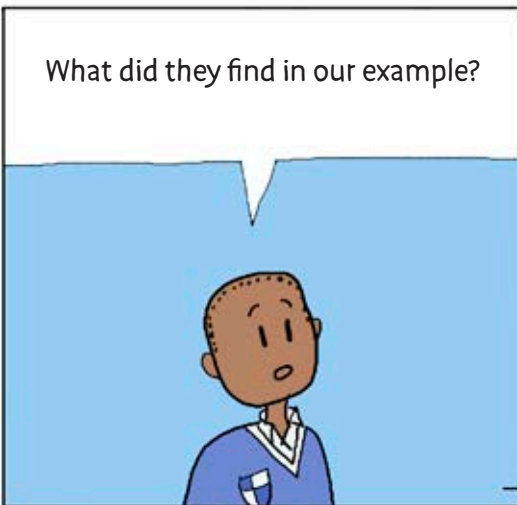
After the people have used their treatments, the health researchers **measure** what happened.



Then they compare what happened in each group.



What did they find in our example?



They found the same happened in each group!



To **MEASURE**

is to look at how much there is or how many there are of something.

LUGANDA: “Okupima” oba “Okubala”

IN KISWAHILI: “Kupima”



Extra examples of claims turned into research questions:

Extra example 1

Claim: Putting vaseline on your skin will make it stay soft!

Research question: Does putting vaseline on your skin make it stay soft compared to not putting vaseline on your skin?

Extra example 2

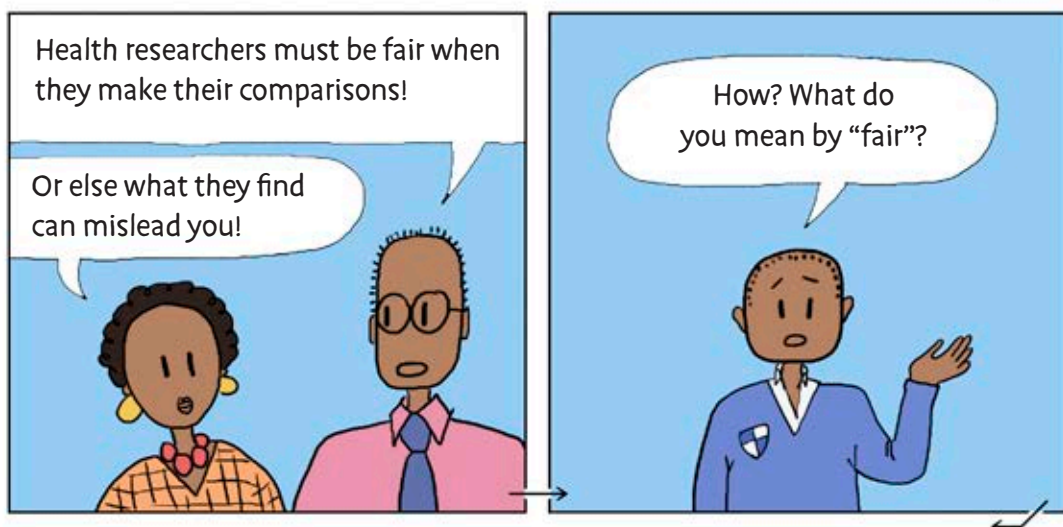
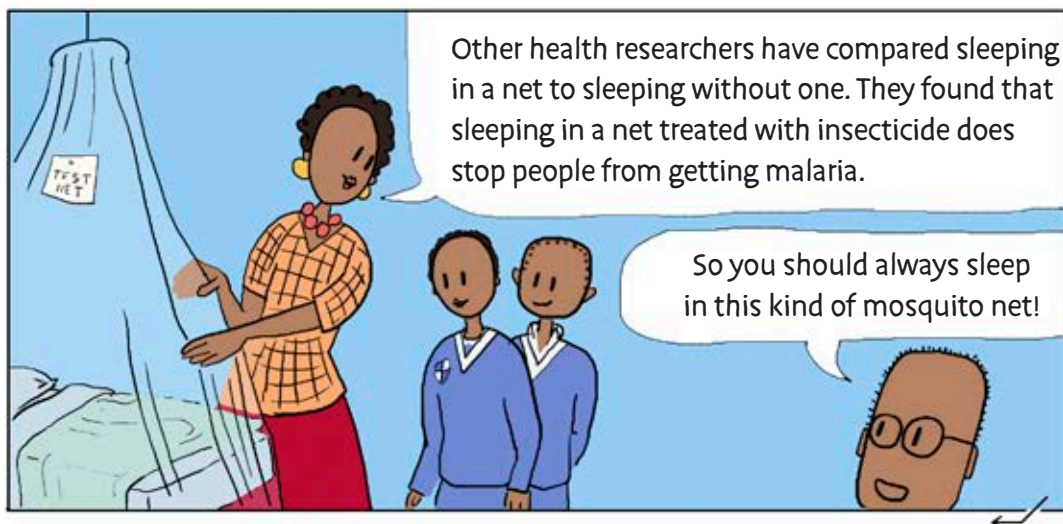
Claim: You will sleep better at night if you drink tea during the day than if you drink coffee!

Research question: Do you sleep better at night if you drink tea during the day compared to drinking coffee?

To **FIND** something after a comparison is to find a difference or similarity.

IN LUGANDA: “Okuzuula ensonga oba ekintu oluvannyuma lw’okukola okugeraageranya wakati w’ekintu ekimu n’ekirala”

IN KISWAHILI: “Gundua”





Instructions

Objective: Explain why health researchers must compare treatments.

Part 1 of Activity 5: Trying to find an effect without a comparison

Step 1: Children put their hands behind their ears, as shown above.

Step 2: The teacher covers their mouth and says a word in a low voice. Children try to hear what the teacher said.

Step 3: The teacher writes two words on the board. One of the words is the word that the teacher just said.

Step 4: The teacher asks how many children think it was the first word that the teacher said.

Step 5: Children who think so stand up.

Step 6: All children sit down.

Step 7: The teacher asks how many children think it was the second word that the teacher said.

More instructions →

ACTIVITY



Step 8: Children who think so stand up.

Step 9: All children sit down.

Step 10: The teacher says what word it was.

Step 11: Led by the teacher, children discuss whether putting your hands behind your ears that way helps you hear better.

Part 2 of Activity 5: Trying to find an effect with a comparison

Step 1: The teacher divides the class into two groups.

Step 2: The teacher chooses one group to listen with their hands behind their ears. This is Group 1.

The other group will listen without their hands behind their ears. This is Group 2.

Step 3: The teacher covers their mouth and says a new word in a low voice.

Step 4: The teacher writes two words on the board. One of the words is the word that the teacher just said.

More instructions →

ACTIVITY



- Step 5:* The teacher asks how many children think it was the first word.
- Step 6:* Children who think so stand up.
- Step 7:* The teacher counts how many children in each group have stood up. The teacher writes the numbers in a chart on the blackboard.
- Step 8:* All children sit down.
- Step 9:* The teacher asks how many children think it was the second word.
- Step 10:* Children who think so stand up.
- Step 11:* The teacher counts how many children in each group have stood up. The teacher writes the numbers in a chart on the blackboard.
- Step 12:* All children sit down.
- Step 13:* The teacher says what word it was.
- Step 14:* Again, led by the teacher, children discuss whether putting your hands behind your ears that way helps you hear better.

EXERCISE 1

Write what the words mean. Remember that the meanings of the words are in the back of the book.

Example:

What is a “health researcher”?

A health researcher is someone who carefully studies health to find out more about health.

1. What is a “reliable” claim?

2. What is a “comparison” of treatments?

3. What is to “measure”?

EXERCISE 2

Tick the best way to measure what happened in each comparison of treatments.

Example:

How much people weigh after using different treatments

- ☒ Weigh them on a scale ☐ Look at them

1. How fast people run when using different treatments

- ☐ Time them with a watch ☐ Ask them

2. Whether people still have fevers after using different treatments


- ☐ Touch their heads ☐ Smell them

3. Whether people still feel head pain after using different treatments

- ☐ Ask them ☐ Look at them

EXERCISE 3

Imagine that the faces are people who have been in comparisons of two tablets for malaria. People in Group A were given a new tablet for malaria. People in Group B were given an old tablet.

Each face like this is a person with malaria: 

Measure the difference between the groups.

Example:

Group A:



Group B:



How many people had malaria in each group?

Group A: 10 out of 20

Group B: 5 out of 20

What was the difference between the groups?

There were 5 more people with malaria out 20 in Group A.



EXERCISE

Group A:



Group B:



How many people had malaria in each group?

Group A: _____ out of 20

Group B: _____ out of 20

What was the difference between the groups?

There were _____ *more* people with malaria out 20 in Group _____.

Group A:



Group B:



How many people had malaria in each group?

Group A: _____ out of 50

Group B: _____ out of 50

What was the difference between the groups?

There were _____ *more* people with malaria out 50 in Group _____.

6

Fair comparisons of treatments

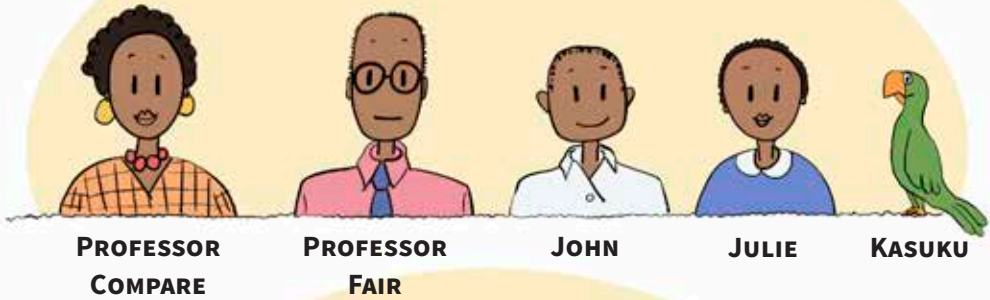
What you will learn in this lesson:

1. What a “fair” comparison of treatments is
2. Why health researchers should be fair when comparing treatments
3. How health researchers should be fair when comparing treatments

Keywords for this lesson:

- A **FAIR** *comparison of treatments* is a comparison where the only important difference is the treatments.
- Choosing by **CHANCE** *who gets which treatment* is a way of choosing without knowing who will get which treatment.

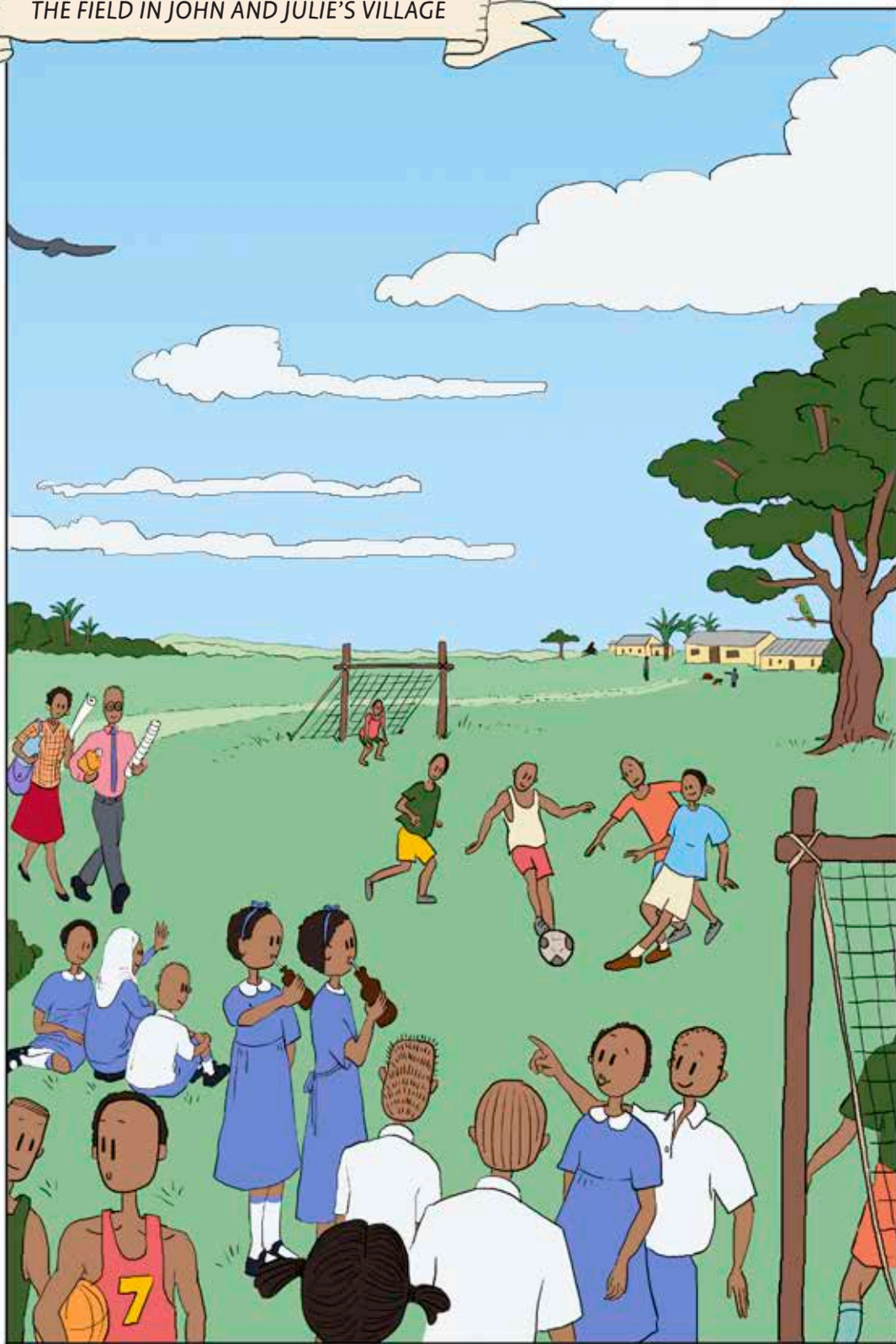
People in this lesson



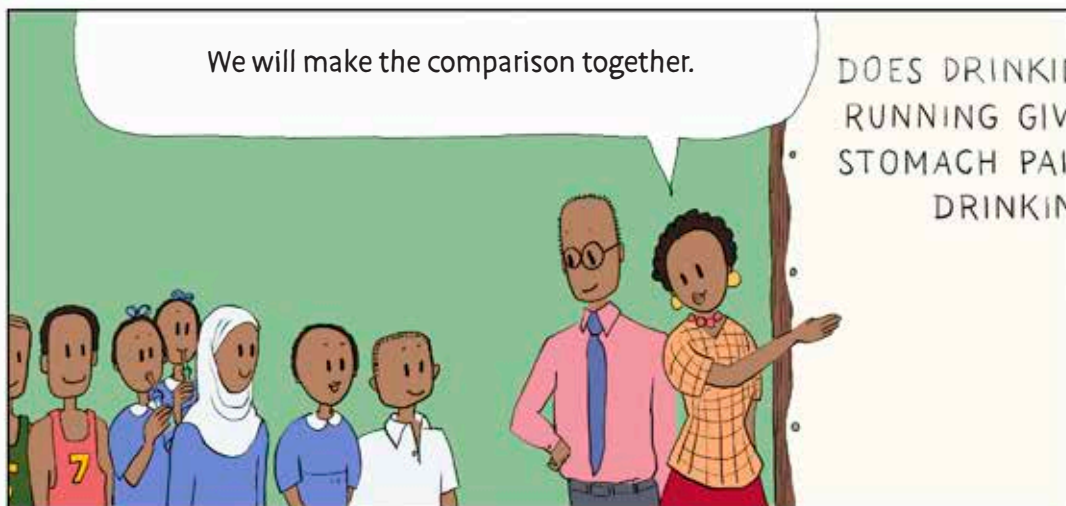
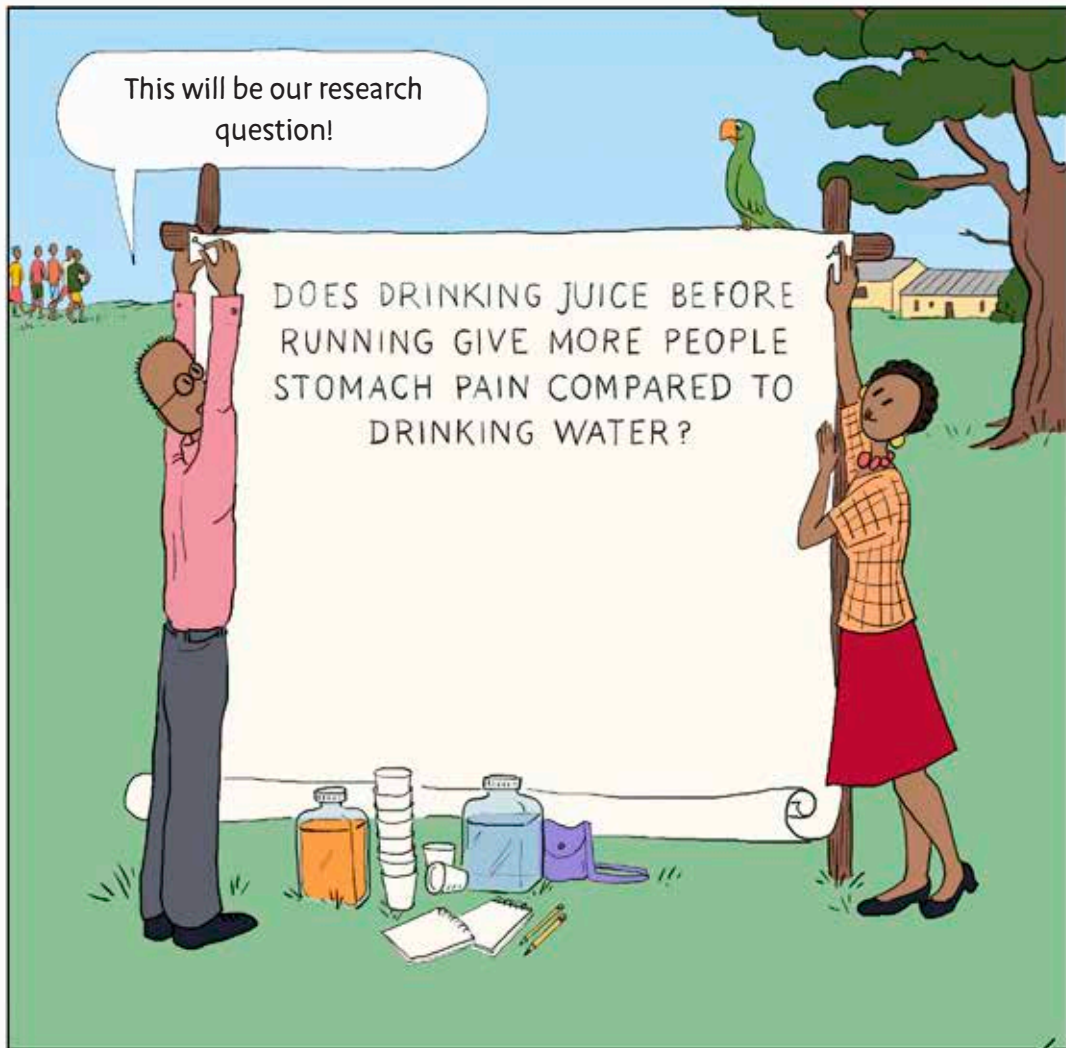
FRIENDS FROM THE VILLAGE

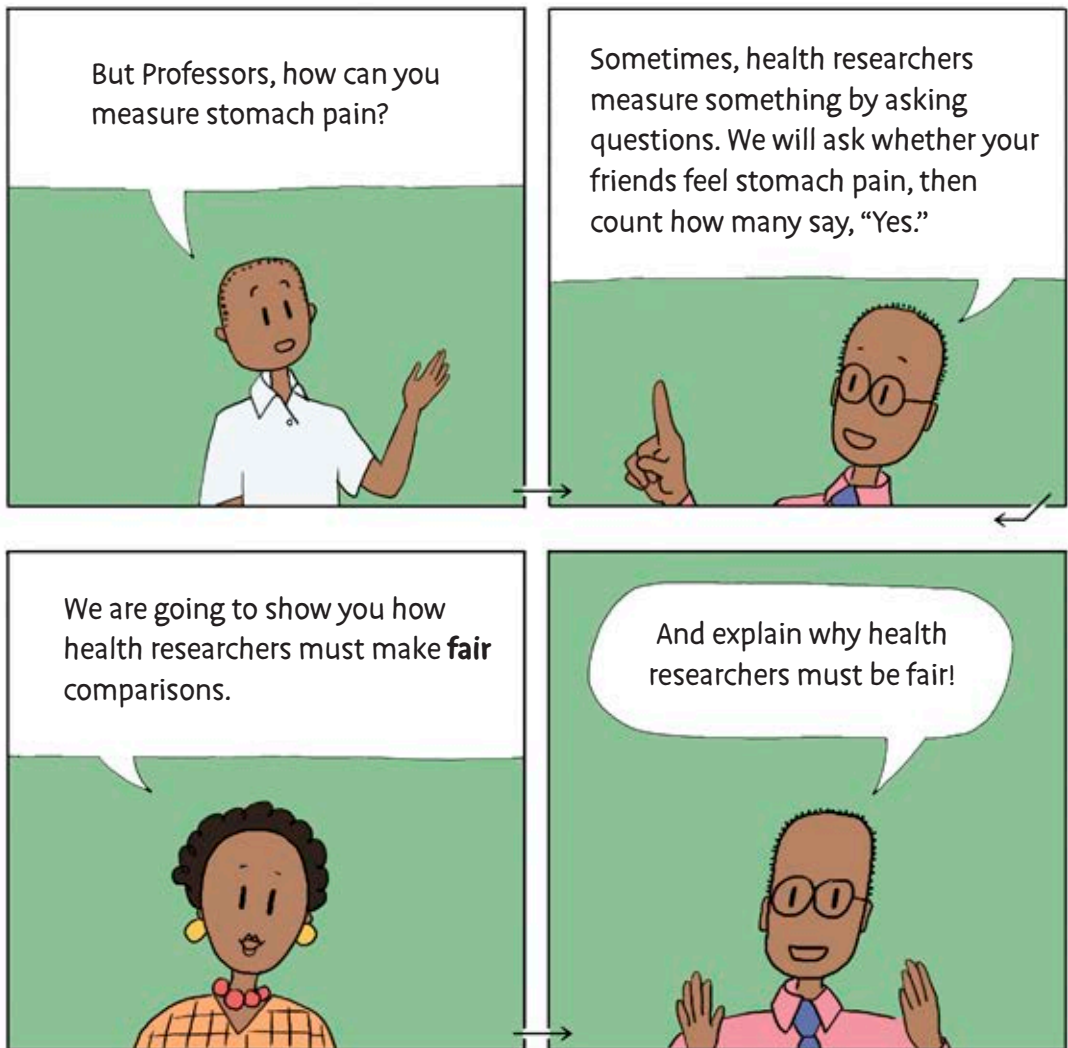
*These are 10 of John and Julie's friends from the village.
They have come to the field to help John, Julie and the
Professors make a comparison.*

THE FIELD IN JOHN AND JULIE'S VILLAGE









A **FAIR** comparison of treatments is a comparison where the only important difference is the treatments.

IN LUGANDA: "Okugeraageranya obujanjabi obumu n'obulala okw'obwenkanya"

IN KISWAHILI: "Mithilisho halisi"

First, tell me: do you think that drinking juice before running gives more people stomach pain? Or do you think that drinking water does?



Good. Now we know what you thought before the comparison.

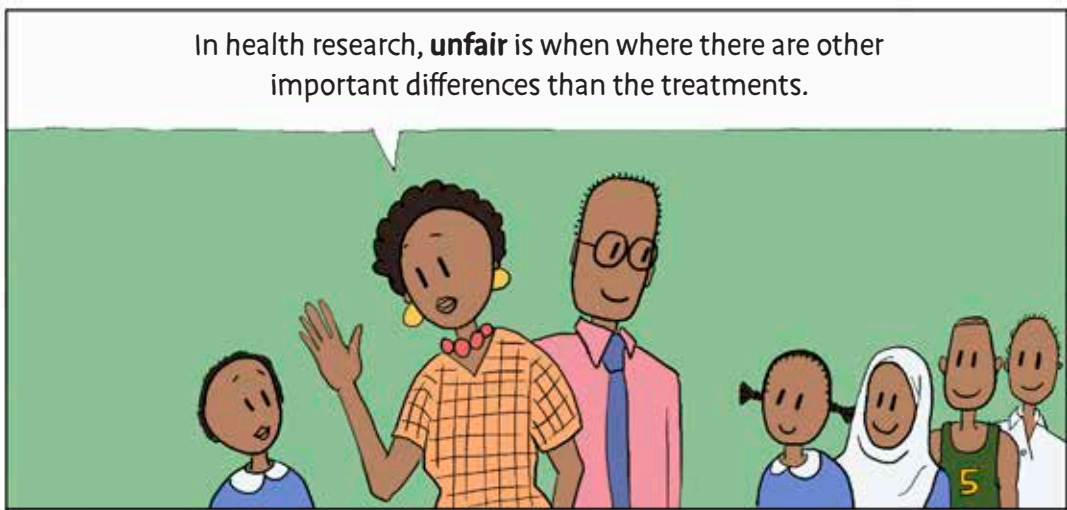


Let us start.



Discussion:

Why do you think the Professors asked the children what they thought would happen?



An **UNFAIR COMPARISON** of treatments

is a comparison where there are other important differences than the treatments.

IN LUGANDA: “Okugeraageranya obujjanjabo obumu n’obulala okutali kwabwenkanya oba okulimu okubbira”

IN KISWAHILI: “Mithilisho isiyo halisi”

STEP 1: Making the groups

We will teach you about
TWO PROBLEMS
that can make a
comparison unfair.

And we will tell you how to
solve these problems!



The first problem can happen
when the health researchers are
making the groups.



Professors, these girls should get
water, not juice! They already have
soda!

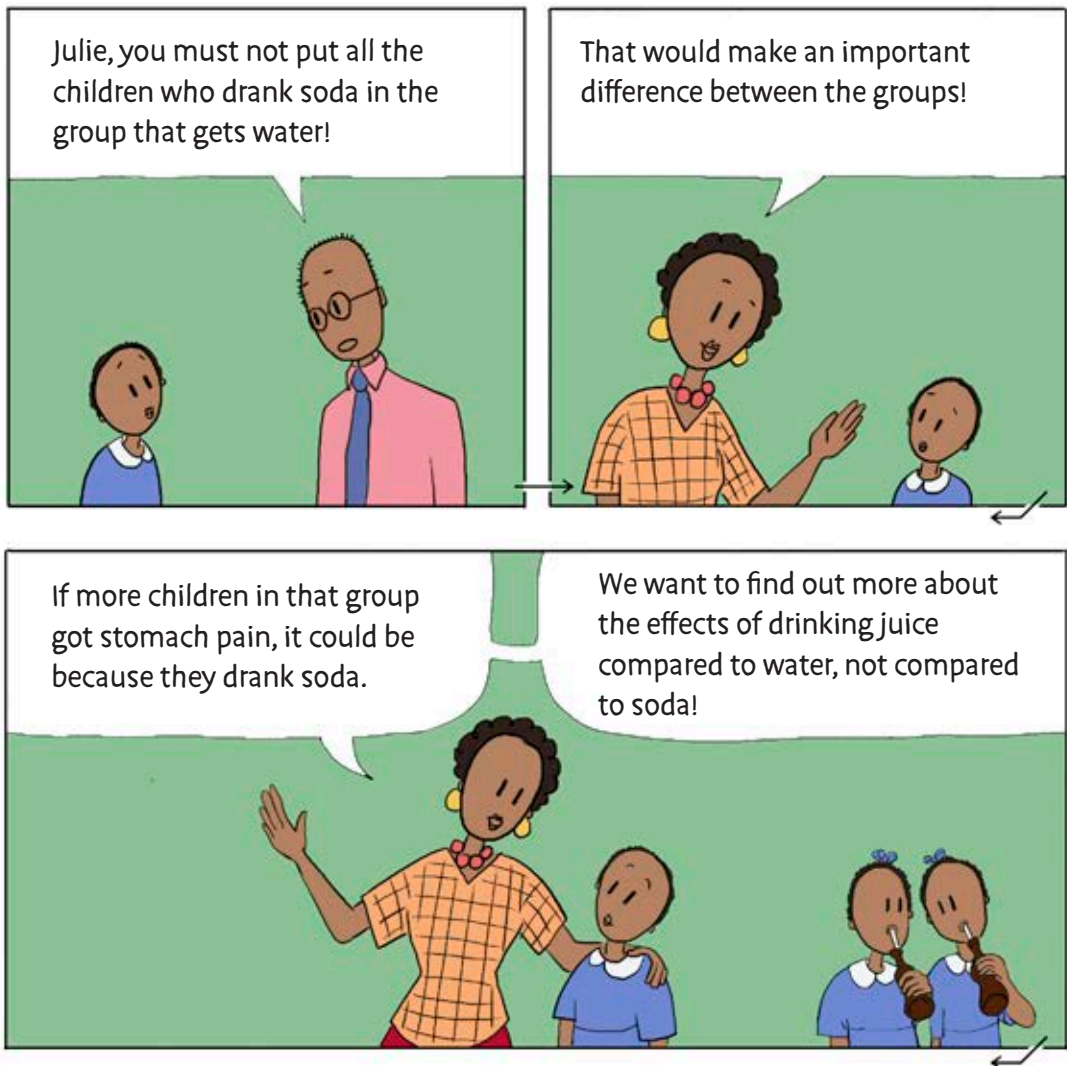


And everyone else should get juice!



No!





Extra example

Research question: Does eating bananas before running help you run faster compared to not eating bananas?

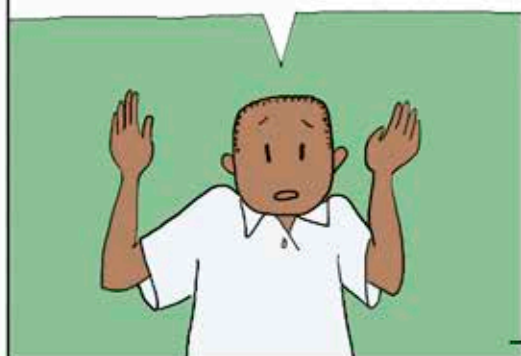
How researchers made the groups: They let people choose whether to eat bananas or not. The fastest people chose to eat them.

Explanation: The comparison was unfair. There was an important difference between the groups other than the treatments. The fastest people were in the same group. It is possible those people would have been fastest whether they had eaten bananas or not. The researchers should have chosen who got bananas by chance.

So, if anyone chooses who gets which treatment, the comparison can become unfair!



How do we solve the problem?



We toss a coin to choose who gets what! This way, who gets what is by **chance**!

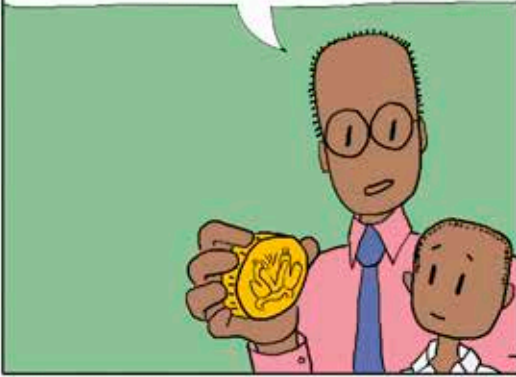


Choosing by **CHANCE** who gets which treatment is a way of choosing without knowing who will get which treatment.

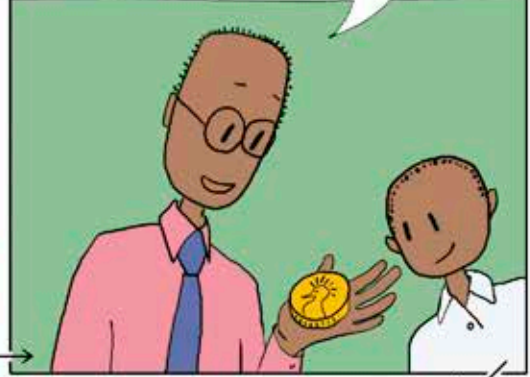
IN LUGANDA: “Omuntu okufuna ekintu lwa lukisakisa gamba nga okukuba akalulu okusalawo ani afuna ekintu ekimu obba ekirala”

IN KISWAHILI: “Kibahati”

If the coin lands on one side,
the child gets juice...



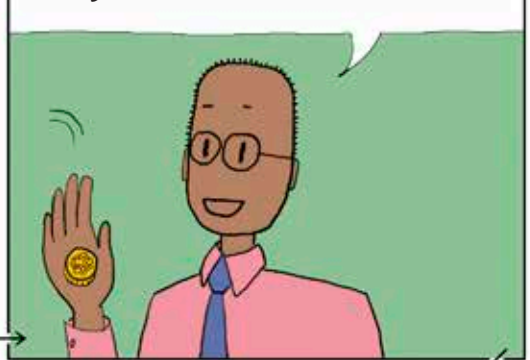
If the coin lands on the other side,
the child gets water.



This way, the groups become
similar.



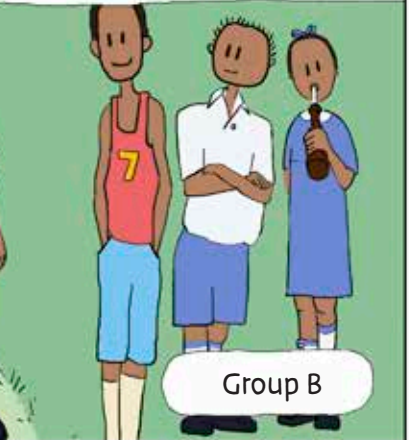
Because everyone has the same
chance of getting juice, whether
they drank soda or not!



The Professors were right!



Now the groups are similar!



STEP 2: Giving people the treatments

The second problem that can make a comparison unfair happens when people get the treatments.

Let us give juice to this group!



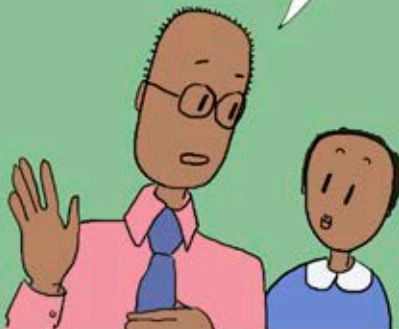
No, Julie!



That would make an important difference between the groups!



Remember, you all think that drinking juice before running gives more people stomach pain.



So the difference would be that more children in one group think that they will get stomach pain!





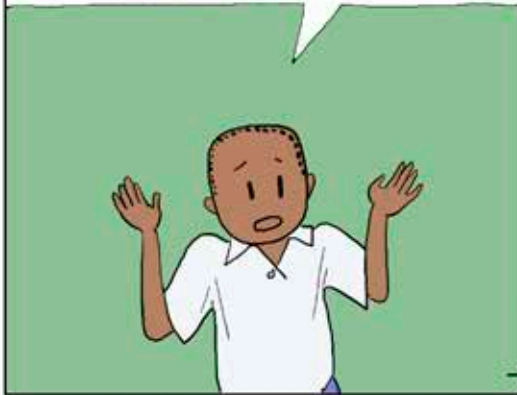
Extra example

Research question: Do people run faster in running shoes that cost a lot of money compared to other shoes?

How researchers made the groups: They let people choose shoes from two boxes. They wrote "NEW" on the box with new shoes.

Explanation: The comparison was unfair. There was an important difference between the groups other than the treatments. People knew whether they were wearing new shoes. It is possible that people wearing the new shoes tried harder to run fast because they thought the new shoes help them. Nobody should have known who got which shoes until the end.

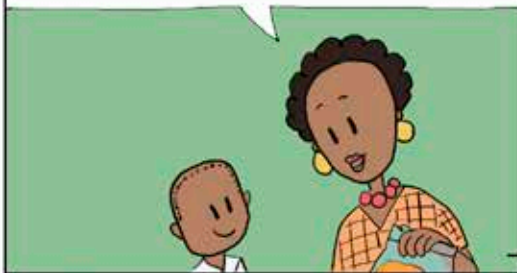
How do we solve the problem?



I will mix this into the water.
It will make the water look and
taste like juice.



I will know who drank the real
juice, but I will not tell anybody
until the end of the comparison.



Do not look!

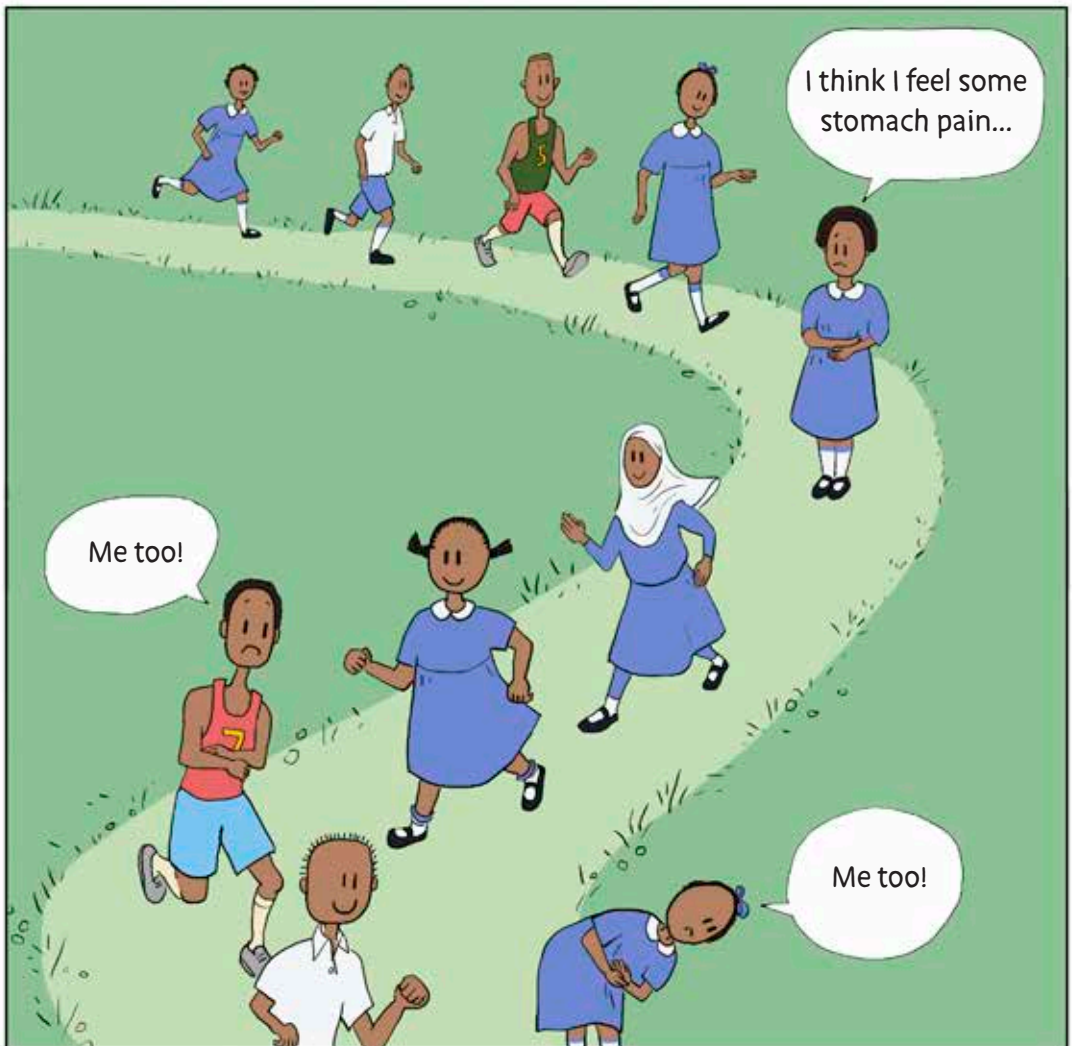


Now we can give the
treatments to your
friends!



I wonder which is the
real juice...





STEP 3: Measuring what happened

And now you can measure what happened!



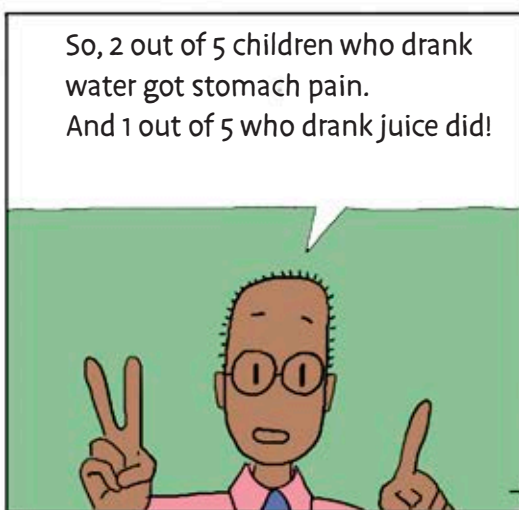
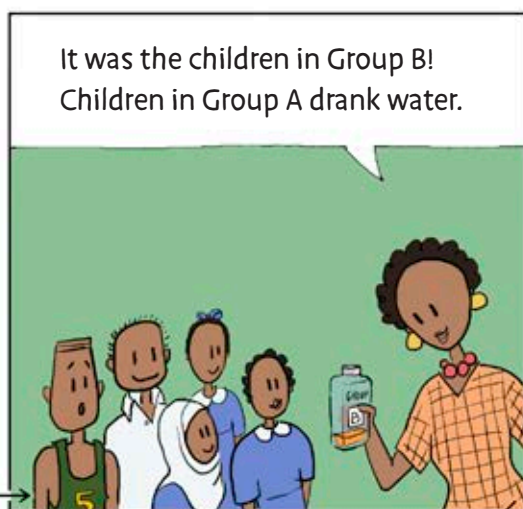
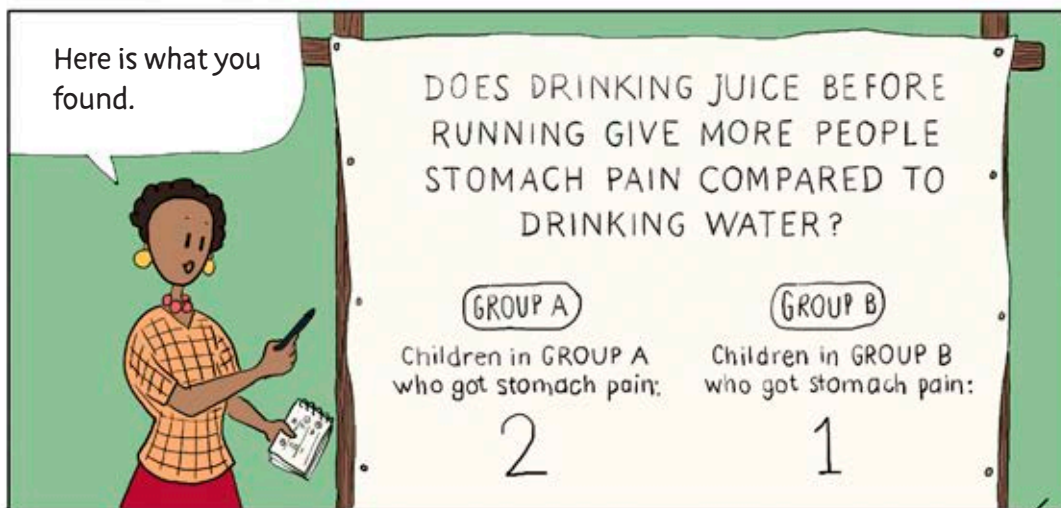
Do you feel
stomach pain?

No!

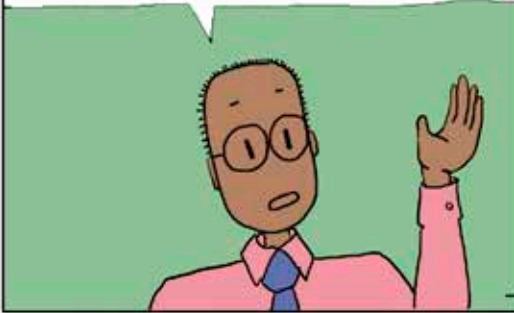
No!

Yes.





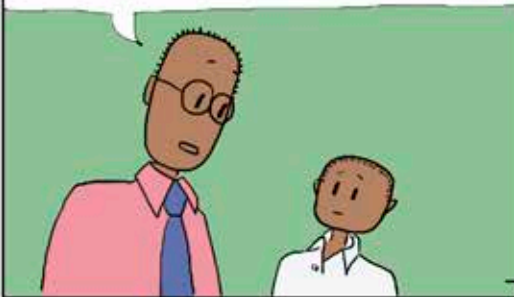
We cannot be sure! What we found could be misleading!



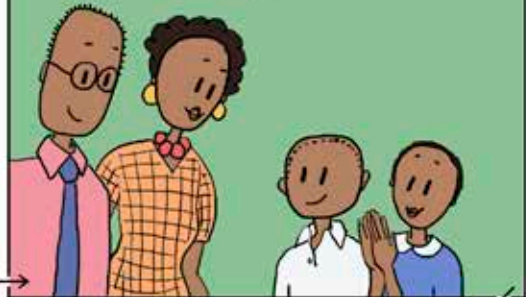
But why?!
The comparison was fair!



Yes, it was fair. But, there were too few people in the comparison!
The comparison was too small!



We will explain this next week.



Come meet us on the field at the university!



Ok, Professors!
Thank you!

ACTIVITY



Instructions

Objective: Explain why health researchers must be fair when comparing treatments.

For this activity, the children will make the same comparison as in the activity for Lesson 5. However, this time, the children must try to make the comparison fair.

The teacher chooses one group to put their hands behind their ears, as shown above. This is Group 1.

The other group will listen without their hands behind their ears. This is Group 2.

Step 1: Led by the teacher, children discuss and agree on how to be fair when making the groups.

Step 2: The teacher makes the groups in a fair way, as discussed in Step 2.

Step 3: The teacher covers their mouth and says a word in a low voice. Children try to hear what the teacher said.

Step 4: The teacher writes two words on the board. One of the words is the word that the teacher just said.

More instructions →

ACTIVITY



Step 5: The teacher asks how many children think it was the first word.

Step 6: Children who think so stand up.

Step 7: The teacher counts how many children in each group have stood up. The teacher writes the numbers in a chart on the blackboard.

Step 8: All children sit down.

Step 9: The teacher asks how many children think it was the second word.

Step 10: Children who think so stand up.

Step 11: The teacher counts how many children in each group have stood up. The teacher writes the numbers in a chart on the blackboard.

Step 12: All children sit down.

Step 13: The teacher says what word it was.

Step 14: For the last time, led by the teacher, children discuss whether putting your hands behind your ears helps you hear better.

EXERCISE 1

Tick whether each point is true or false.

Example:

Many times, health researchers have compared using a treatment to not using the treatment.

☒ True ☐ False

1. Health researchers' comparisons may not always be fair.
☐ True ☐ False
2. If you think that a treatment will make you happier, you could feel happier after using it without the treatment really doing anything.
☐ True ☐ False
3. In a fair comparison, the treatment is the only important difference between groups.
☐ True ☐ False
4. Health researchers can measure something by asking questions.
☐ True ☐ False

EXERCISE 2

Imagine that Professor Compare and Professor Fair are studying the measles vaccine.

A vaccine is an injection that is used to stop people from getting a disease.

Measles is a type of disease.

So, the measles vaccine is an treatment for stopping people from getting measles.

The Professors are going to compare using the vaccine to not using the vaccine.

1. What is the Professor's research question?

2. Should the Professors choose who gets the vaccine? Why?



EXERCISE 3

3. Should the people in the comparison choose who gets the vaccine?
Why?

4. Should the people in the comparison know if they got the vaccine?
Why?

7

Fair comparisons with many people

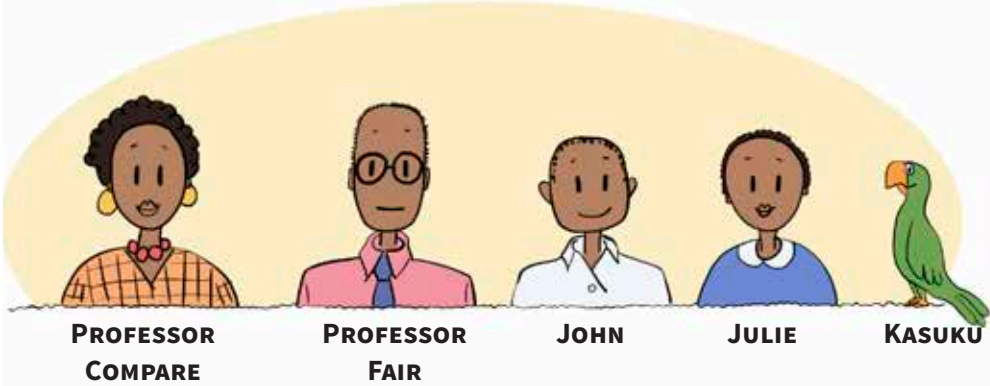
What you will learn in this lesson:

1. Why health researchers should give the treatments to many people in their fair comparisons

Keyword for this lesson:

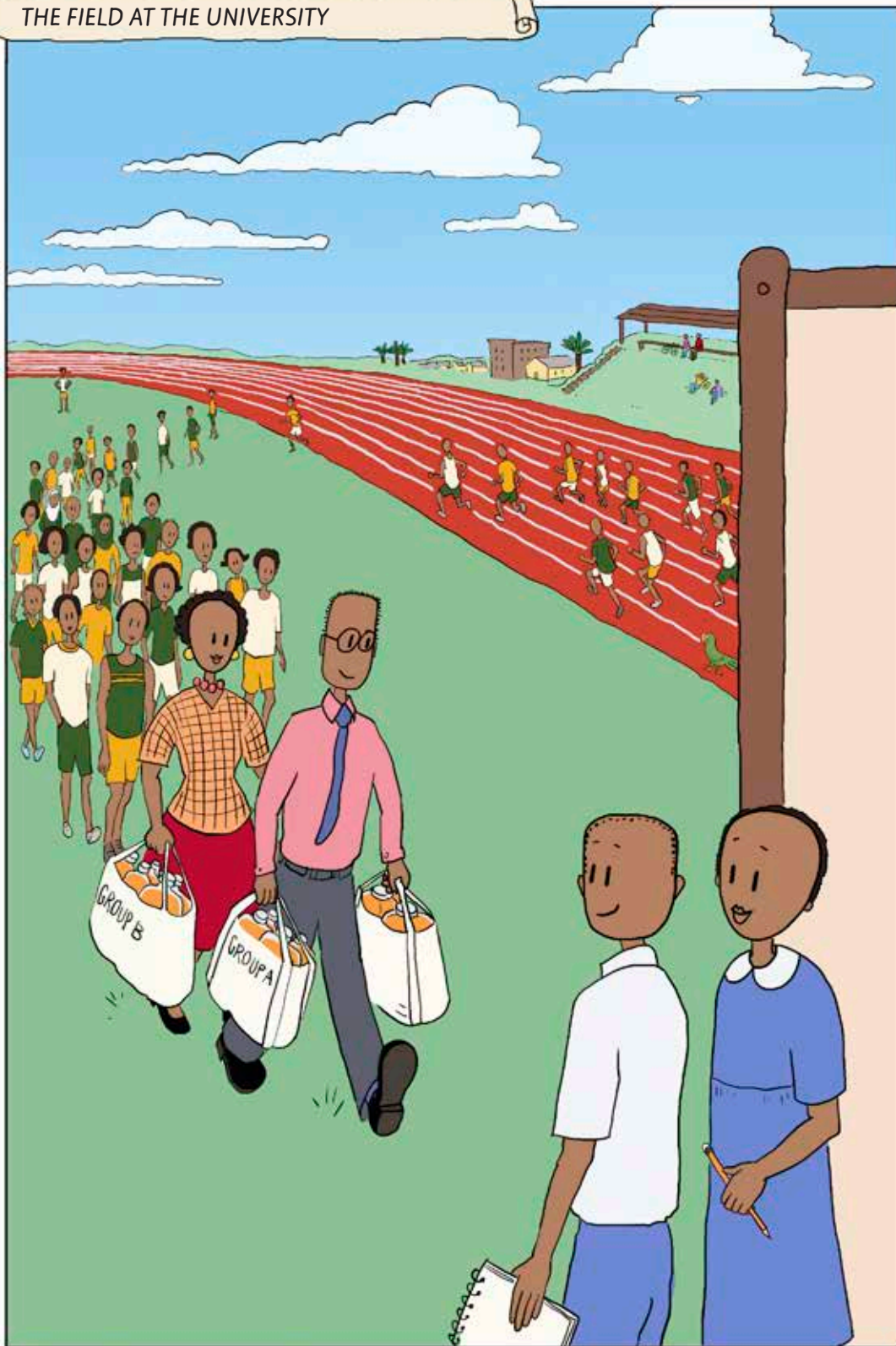
*Finding something by **CHANCE** in comparisons that were too small is finding something without knowing why it happened because the comparisons were too small.*

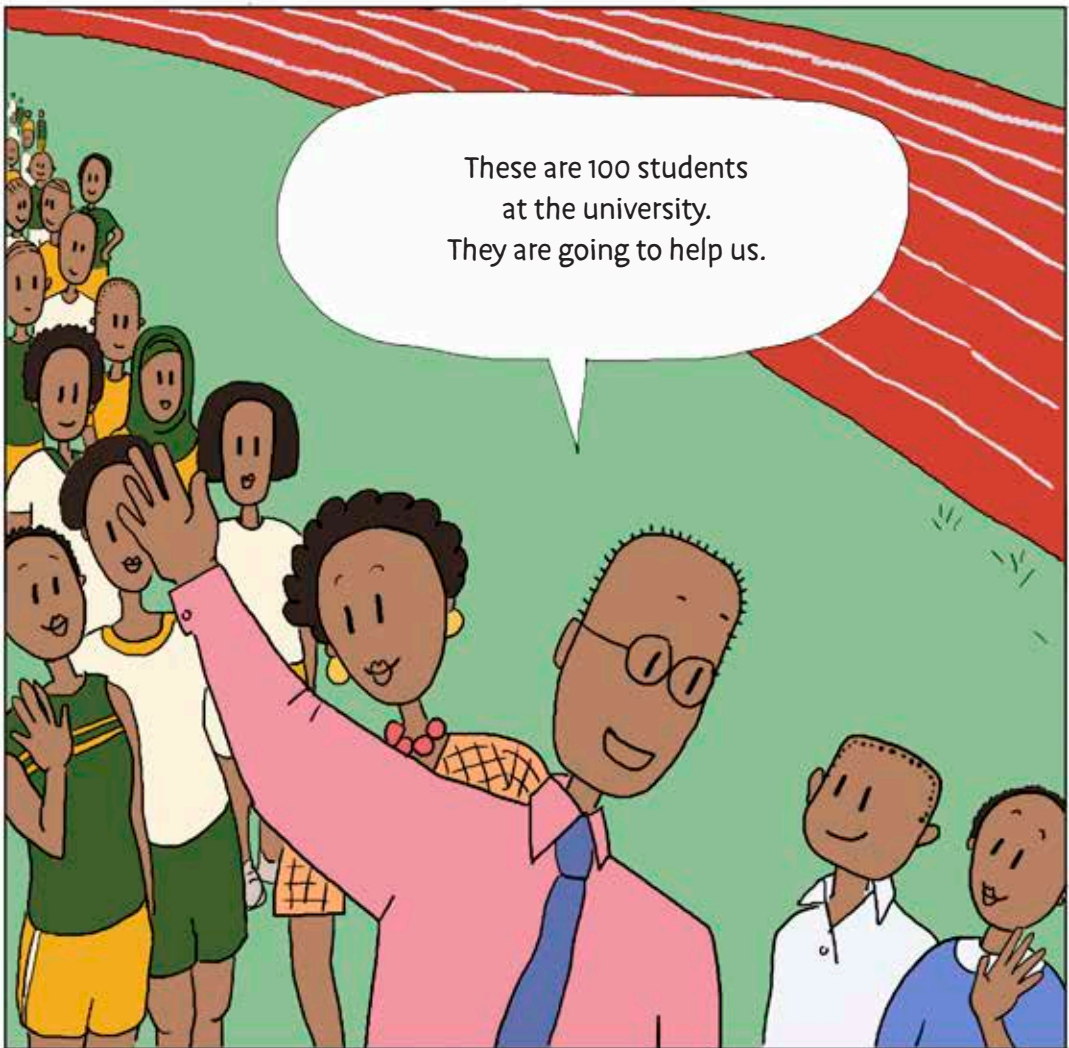
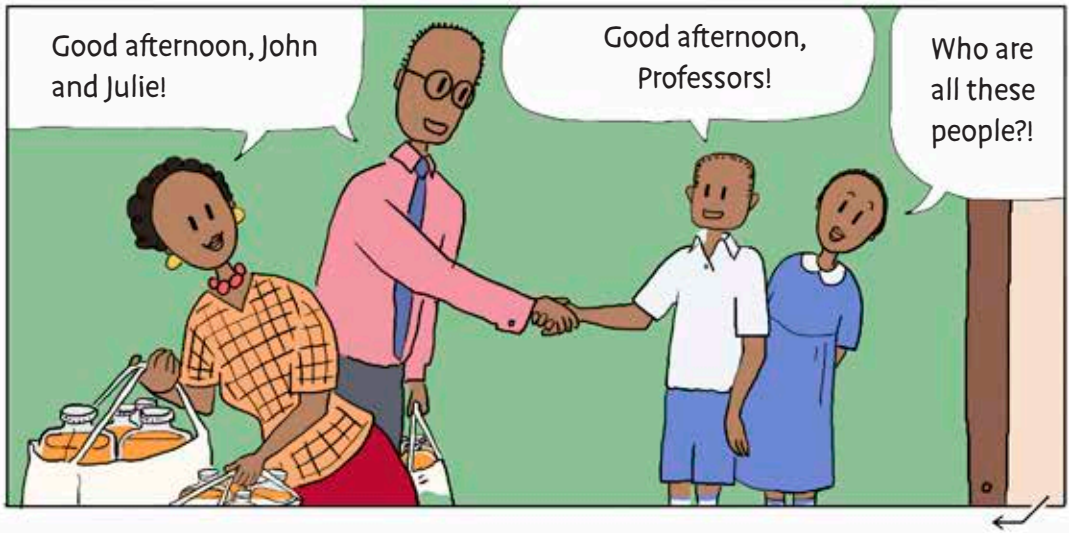
People in this lesson



RUNNERS AT THE UNIVERSITY

These are 100 runners at the university. They have come to the field to help John, Julie and the Professors make comparisons.







*Finding something by **CHANCE** in comparisons that were too small is finding something without knowing why it happened because the comparisons were too small.*

IN LUGANDA: “Ekintu okuzuulibwa oba okusangibwa lwa mukisa bukisa oba lwa lukisakisa”

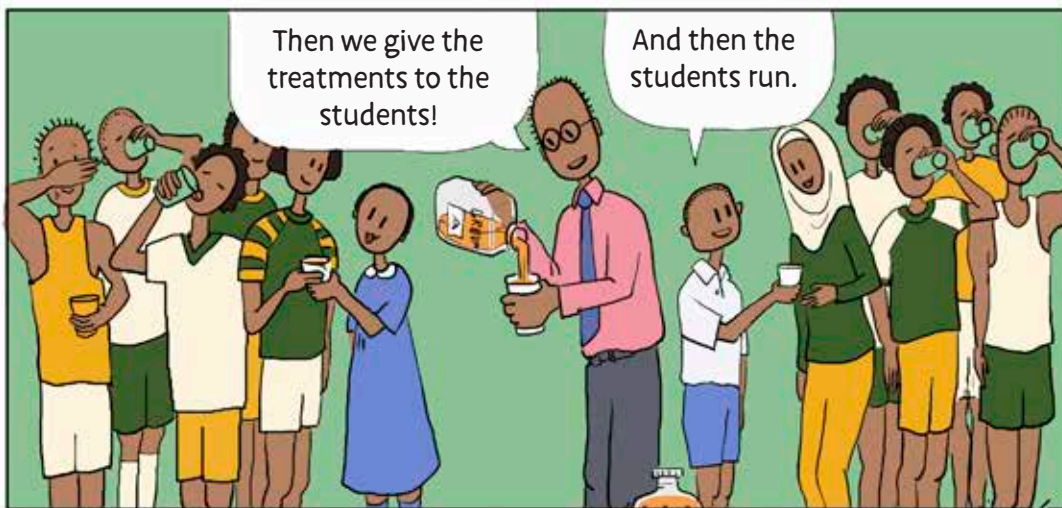
IN KISWAHILI: “Kibahati”

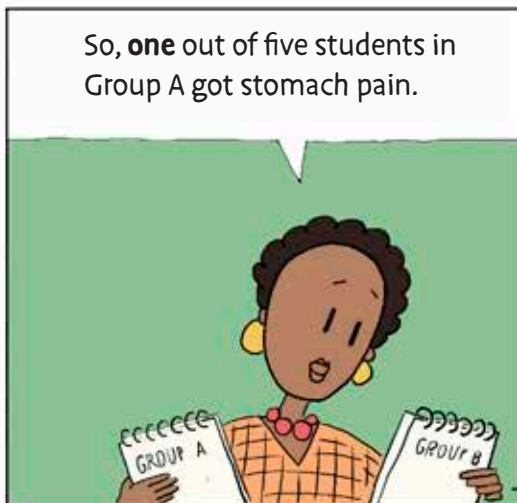
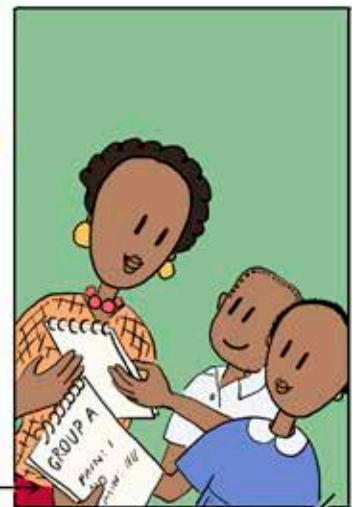
We will use the same treatments as last week: juice and water.



First we will make three comparisons with only 10 runners.







More people in Group B had pain!

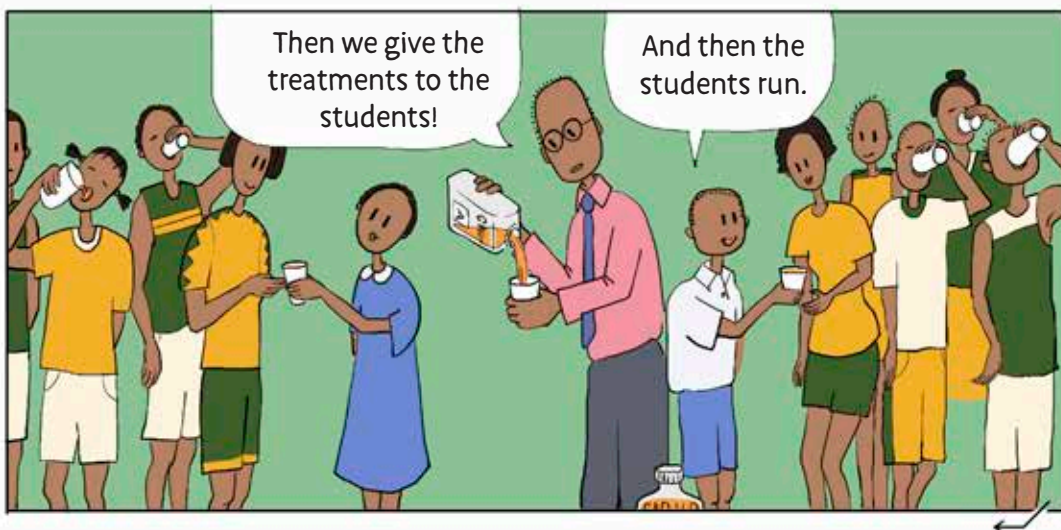
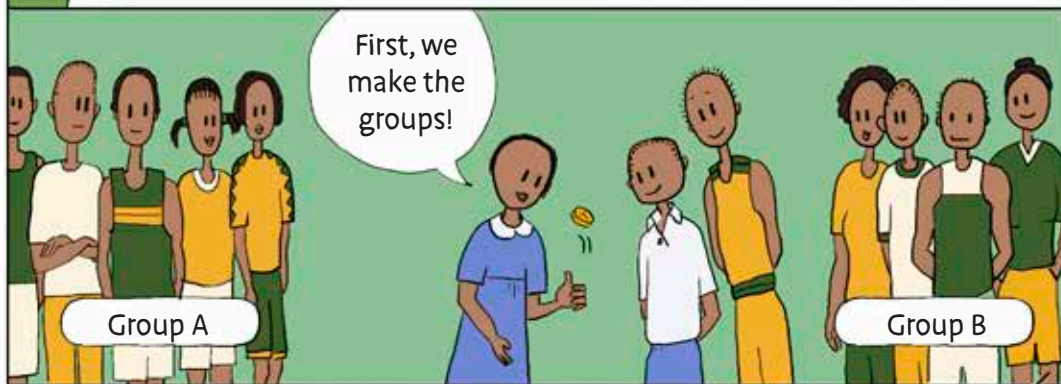
DOES DRINKING JUICE BEFORE RUNNING GIVE MORE PEOPLE STOMACH PAIN COMPARED TO DRINKING WATER ?

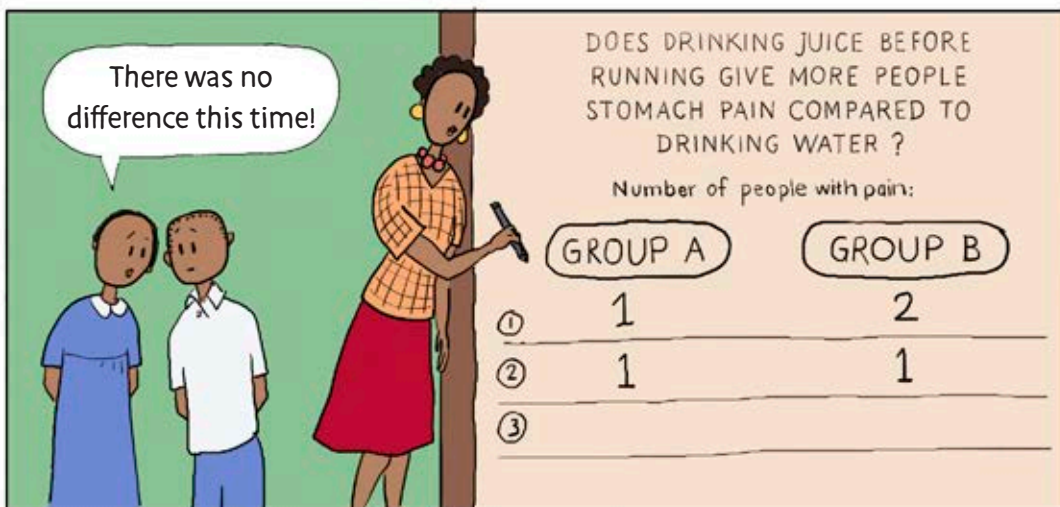
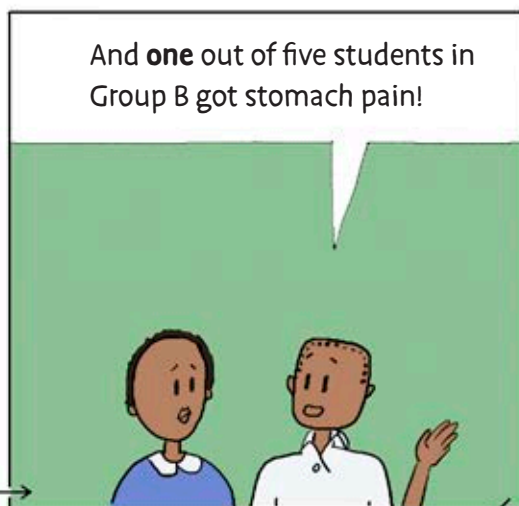
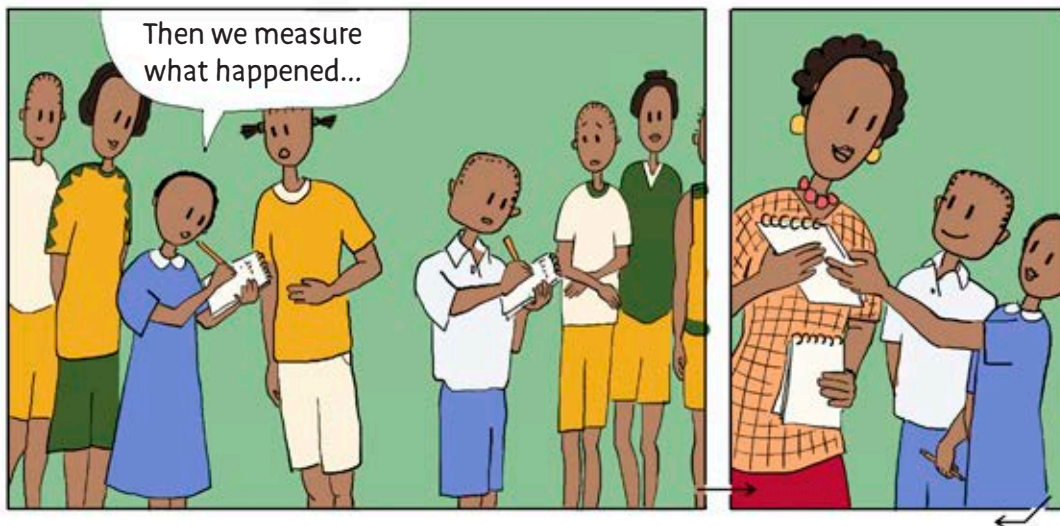
Number of people with pain:

	GROUP A	GROUP B
①	1	2
②		
③		



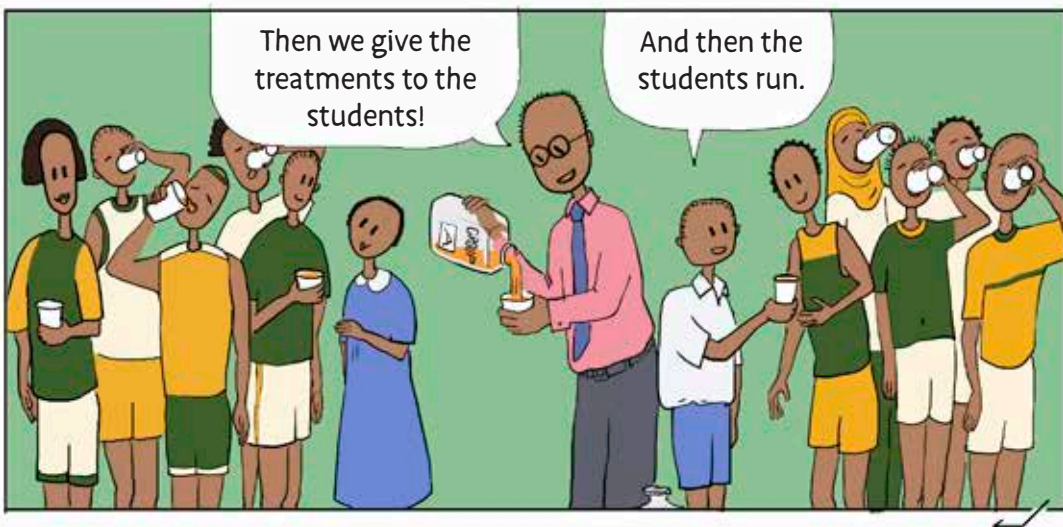
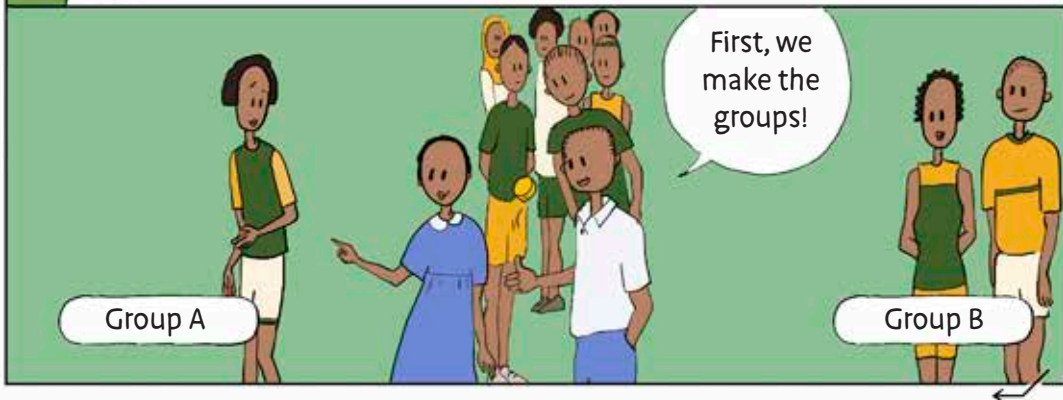
Second fair comparison with 10 runners

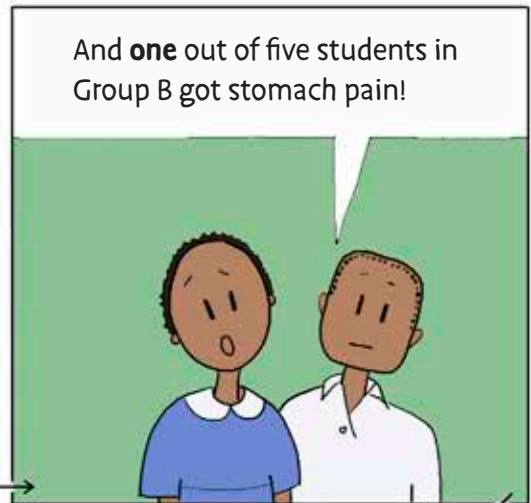
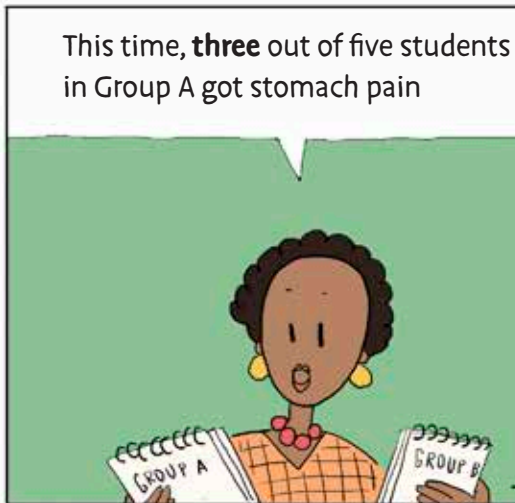
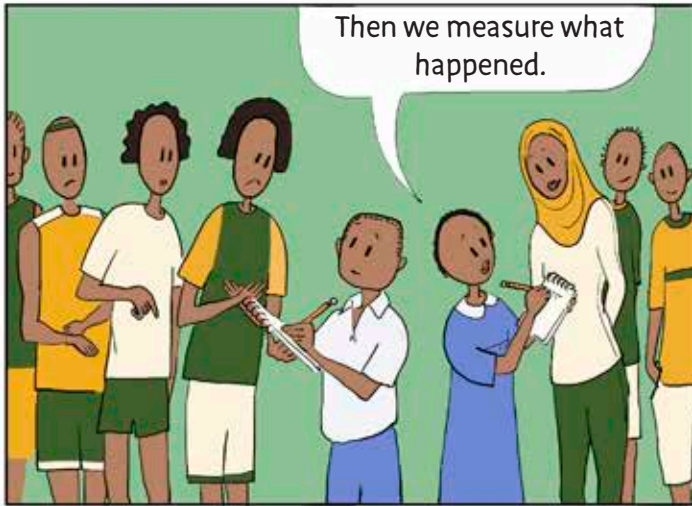






Third fair comparison with 10 runners



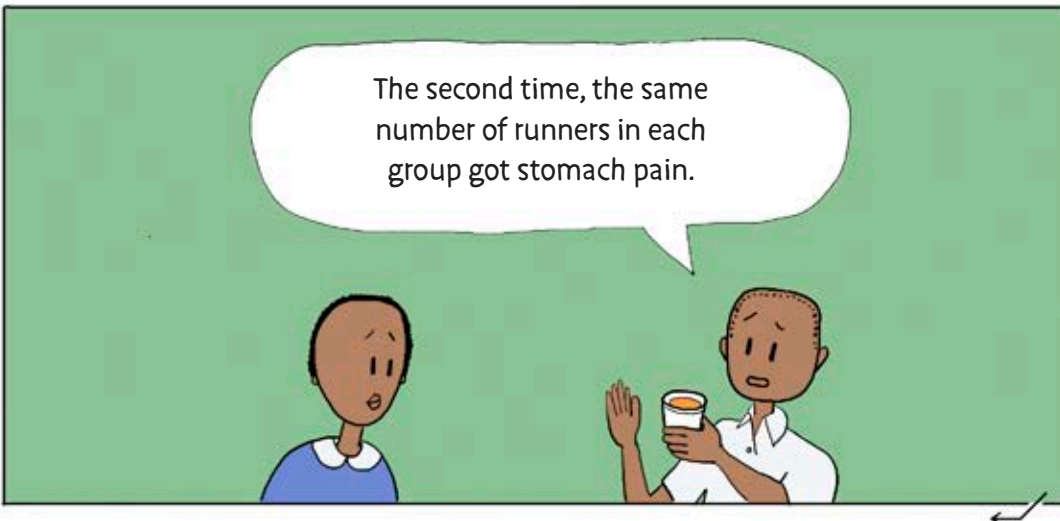
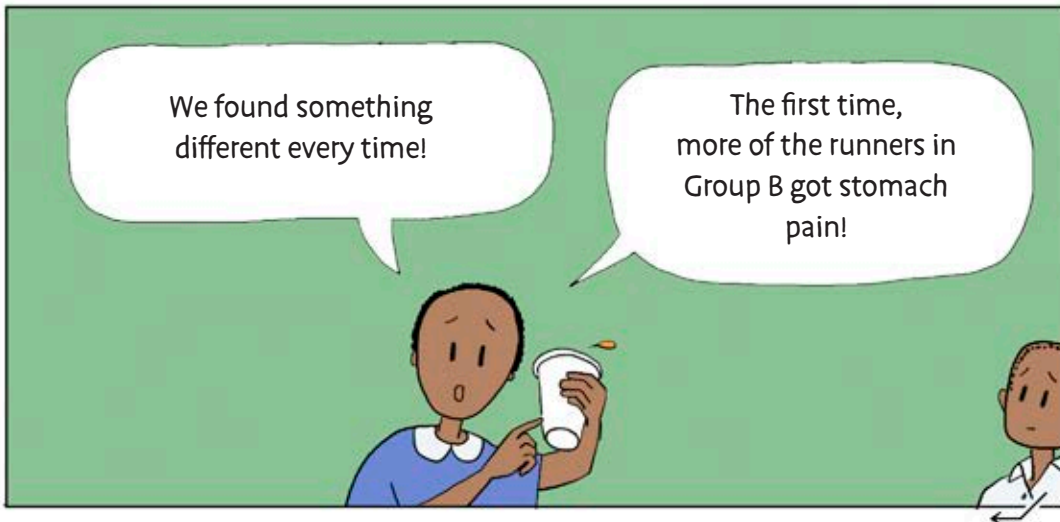


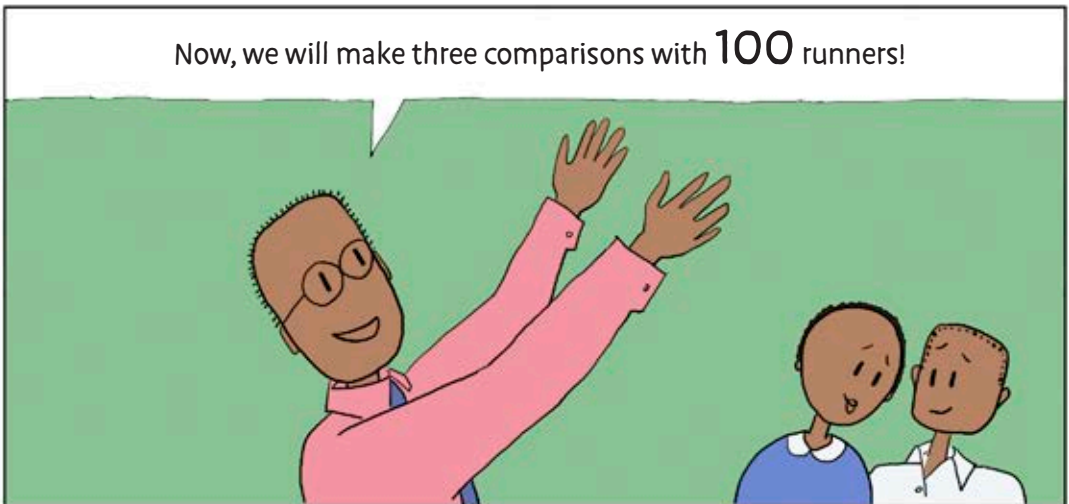
So what do you think of these findings, John and Julie?

DOES DRINKING JUICE BEFORE RUNNING GIVE MORE PEOPLE STOMACH PAIN COMPARED TO DRINKING WATER ?

Number of people with pain:

	GROUP A	GROUP B
①	1	2
②	1	1
③	3	1

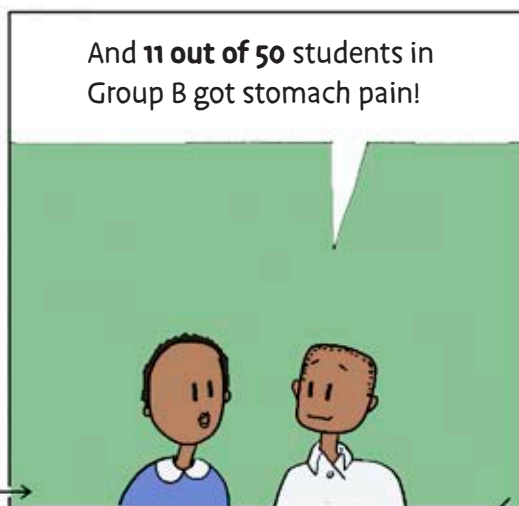






First fair comparison with 100 runners



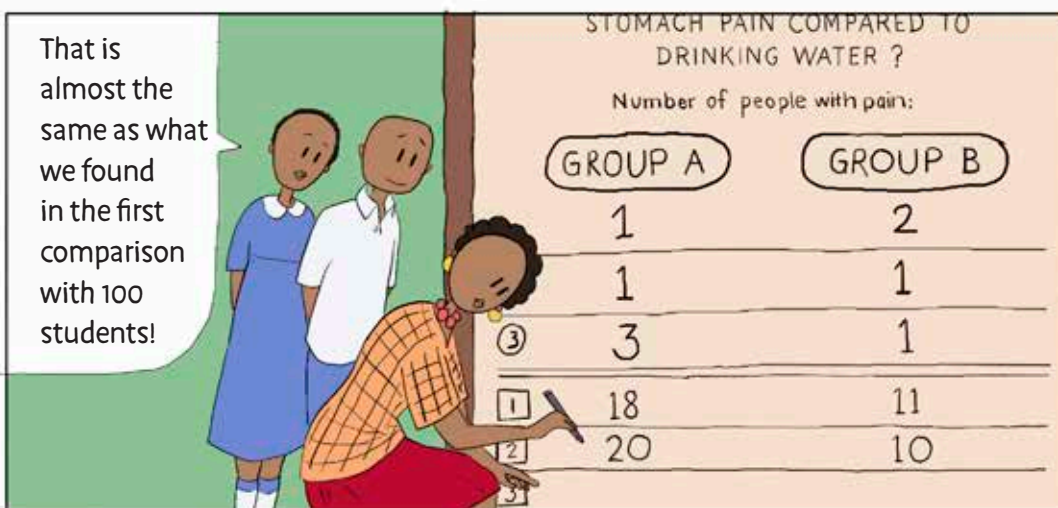
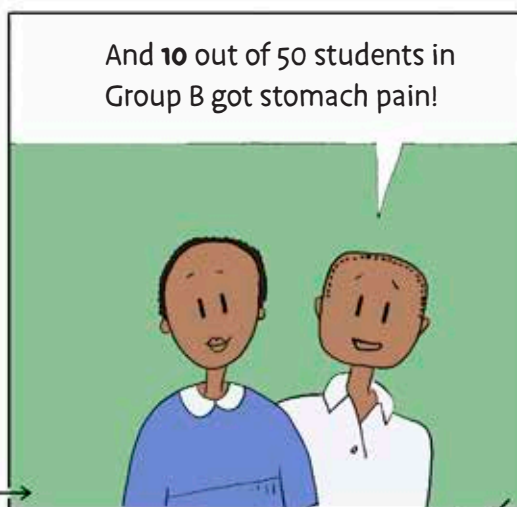
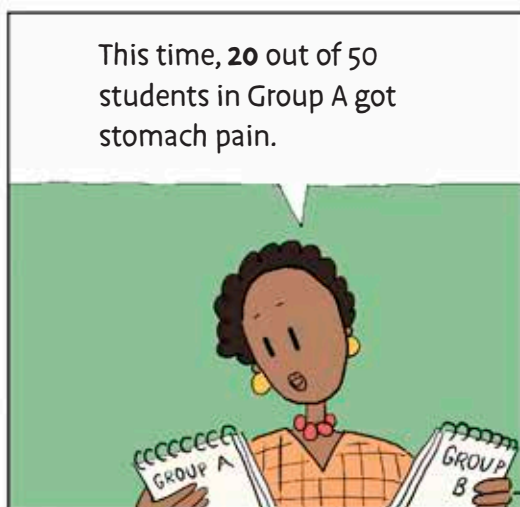


STOMACH PAIN COMPARED TO DRINKING WATER ?

Number of people with pain:

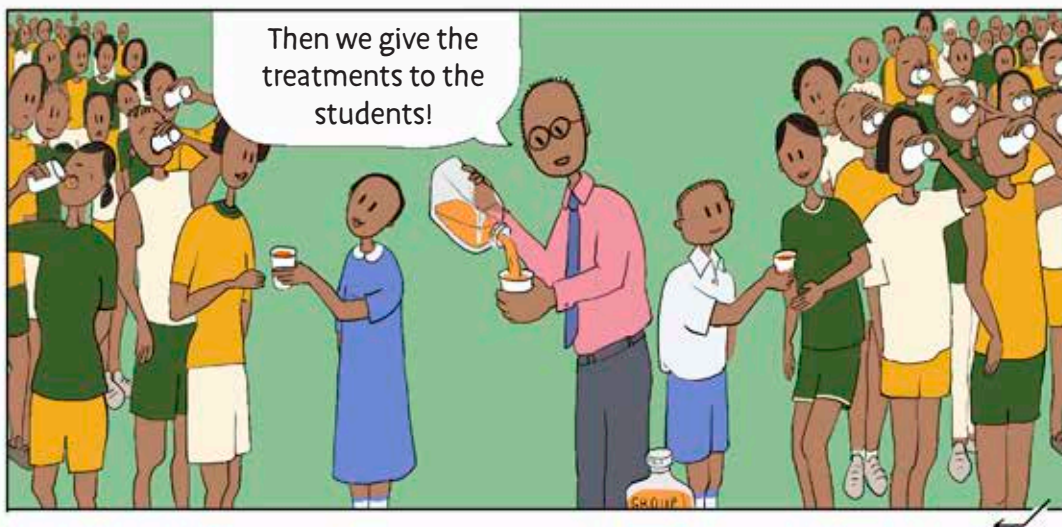
	GROUP A	GROUP B
①	1	2
②	1	1
③	3	1
④	18	11
⑤		
⑥		

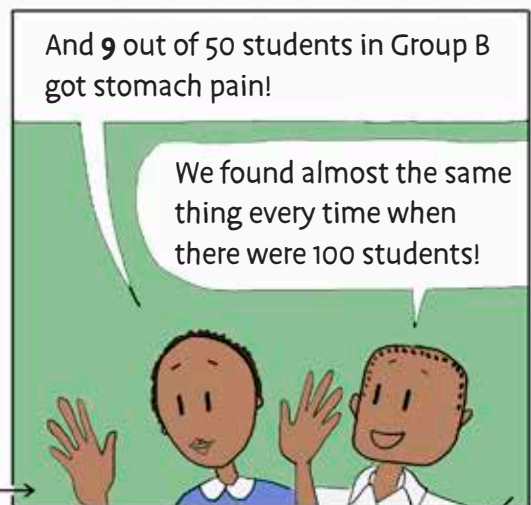
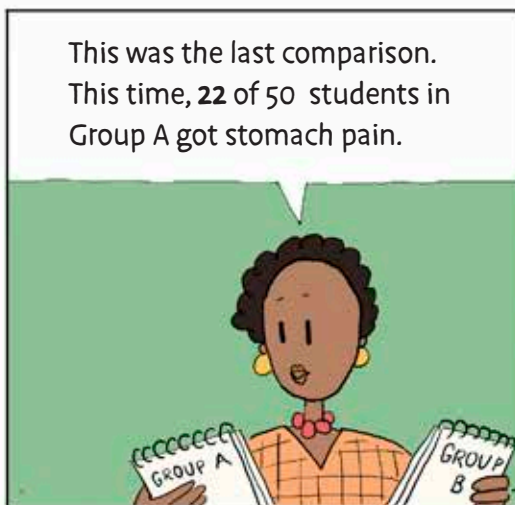






Third fair comparison with 100 runners





STOMACH PAIN COMPARED TO DRINKING WATER ?

Number of people with pain:

	GROUP A	GROUP B
	1	2
	1	1
③	3	1
①	18	11
②	20	10
③	22	9

So, when the comparisons were small, you found something different each time.



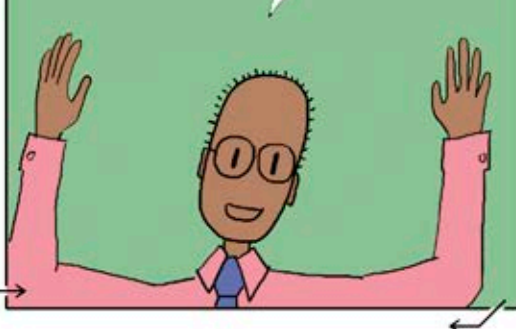
But when they were big, about ten more runners out of 50 who drank juice got stomach pain compared to those who drank water.



The more times that you find the same thing, the more sure you can be that it was because of the treatments!



And it was not by chance!

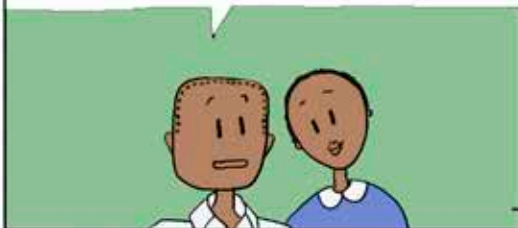


And to find something many times, health researchers must make fair comparison with many people!

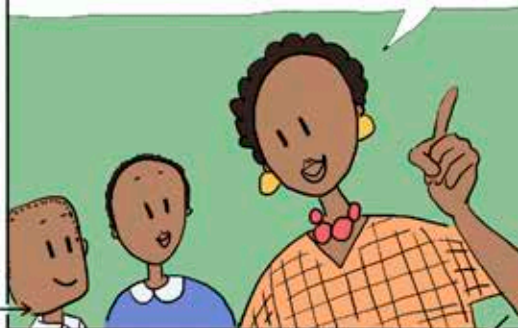


Exactly! The fair comparisons must be big enough!

So big enough fair comparisons are a good basis for claims about treatments?



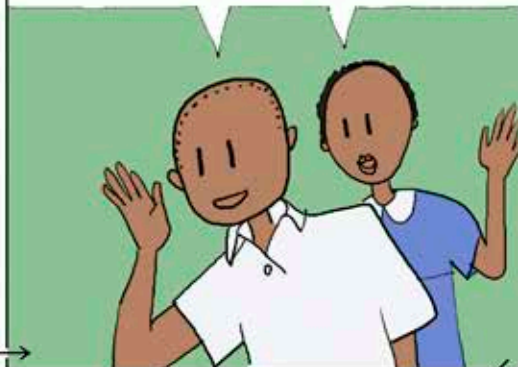
Yes! Claims that are based on big enough fair comparisons are reliable!



So, remember: health researchers must compare, be fair...



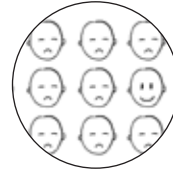
And make their comparisons big enough!



Exactly!



ACTIVITY

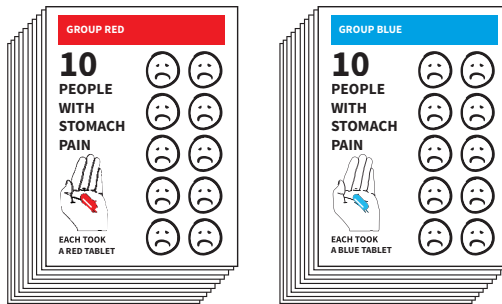


Instruction

Objective: Explain how comparisons with few people can be misleading

Step 1: The children imagine that they are health researchers. The teacher has two sets of 10 papers. One set is red and the other is blue. Children imagine that each set is a group of people in their comparison.

On the front of each paper, there are 10 sad faces. The sad faces are people who have stomach pain. That means there are 100 people with stomach pain in each of the two groups.

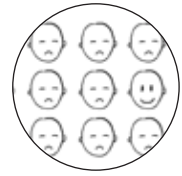


Step 2: The children imagine they have given a red tablet for stomach pain to people on the red papers. These people are in Group Red. They imagine they have given a blue tablet for stomach pain to people on the blue papers. These people are in Group Blue.

The people have used their treatments, so now the children can measure what happened.

More instructions →

ACTIVITY



Step 3: Led by the teacher, the children measure what happened to 10 people in each group.



The teacher chooses two children. One child turns over the top red paper to show the back. The other child turns over the top blue paper. On the back of each paper, some of the faces are smiling. Each smiling face is a person who no longer has stomach pain.

Step 4: The teacher and children count how many people in each group no longer have stomach pain. In the chart in their exercise book, each child writes how many people in each group no longer have stomach pain. The teacher writes how many in a chart on the board.

Step 5: Led by the teacher, children discuss which tablet seems best to take if you have stomach pain.

Step 6: The teacher and children repeat Steps 2 to 4 until they have turned over all the papers

Step 7: When all the papers have been turned over, led by the teacher, children discuss whether the same tablet seemed best at the beginning of the activity as at the end.

EXERCISE 1

Tick whether each point is true or false.

Example:

In a fair comparison, the groups are similar.

☒ True ☐ False

1. In fair comparisons, health researchers can be more sure why something happens when it happens many times.
☐ True ☐ False
2. If a comparison is big enough, it is not important whether it is fair.
☐ True ☐ False
3. Most of the time, health researchers should make more than one fair comparison of the same treatments.
☐ True ☐ False

EXERCISE 2

Remember that the two meanings of “by chance” are in the back of the book

1. What does it mean to choose “by chance” who gets which treatment?

2. What does it mean to find something “by chance” in a comparison that was too small?

John and Julie learn about CHOICES of treatments

.....



8

Advantages and disadvantages of a treatment

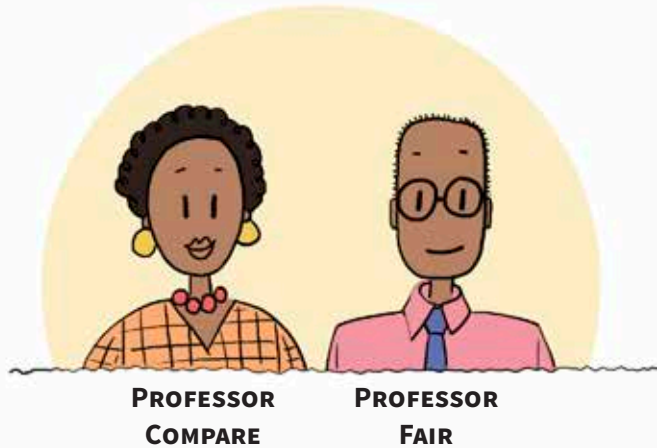
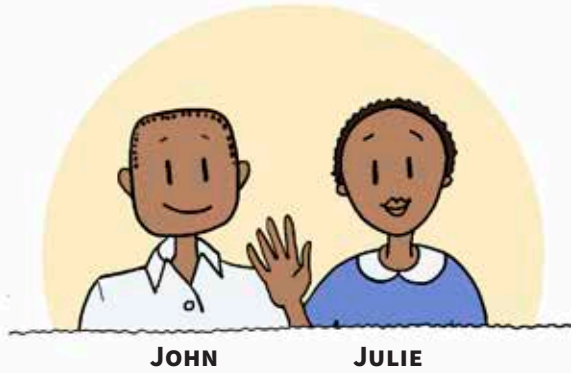
What you will learn in this lesson:

1. What an “advantage” of a treatment is
2. What a “disadvantage” of a treatment is
3. What an “informed choice” is
4. Why it is important to make informed choices of treatments
5. How to make informed choices of treatments

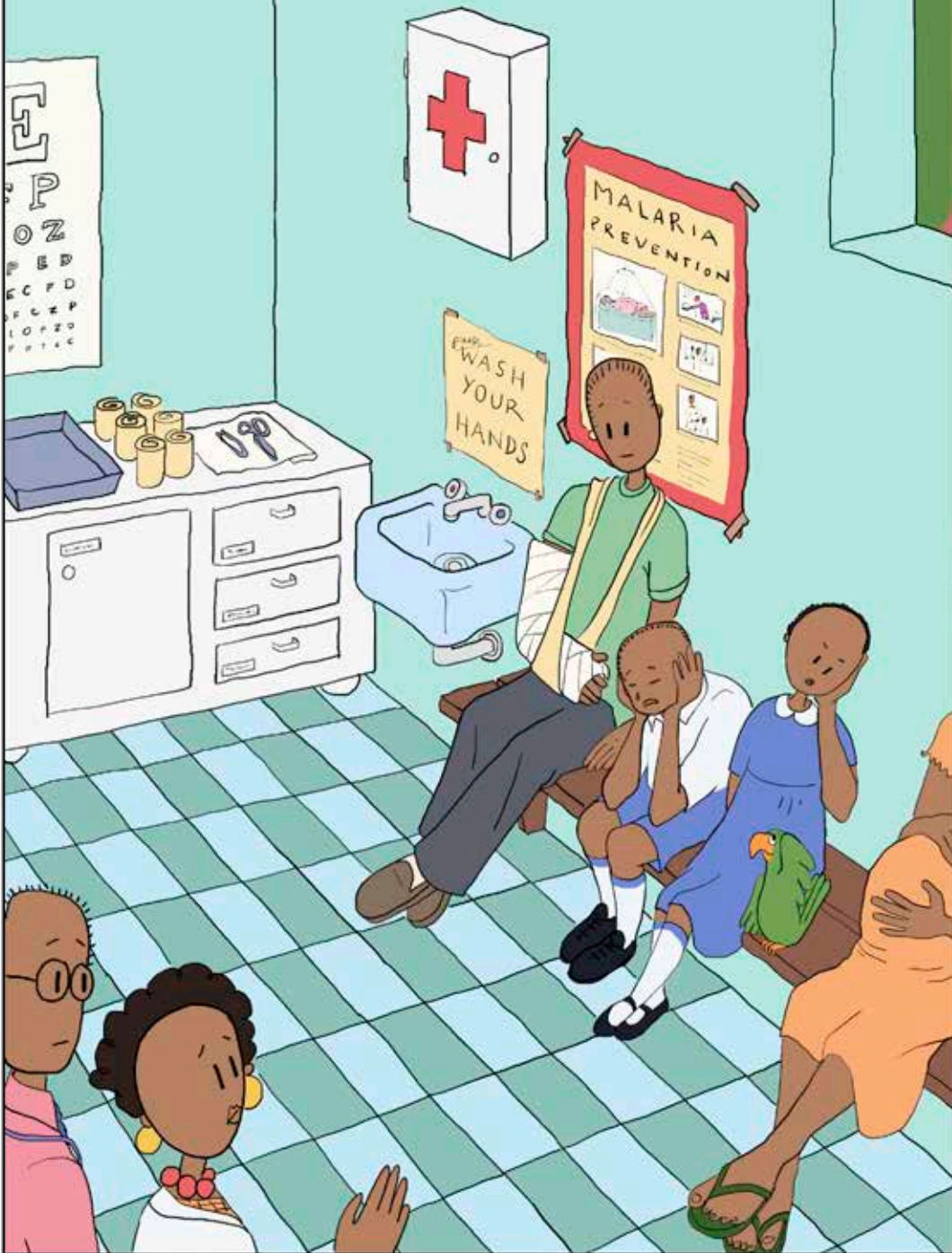
Keywords for this lesson:

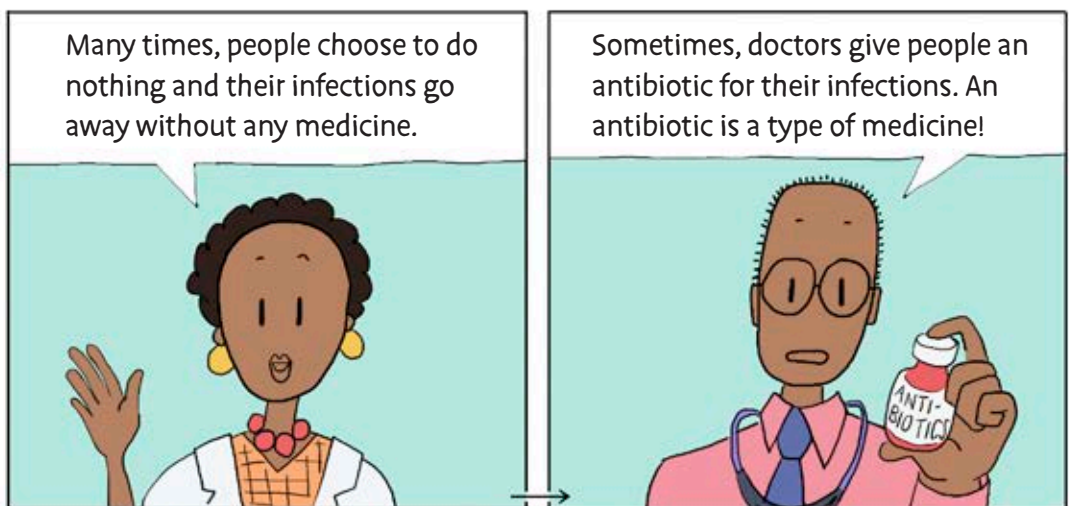
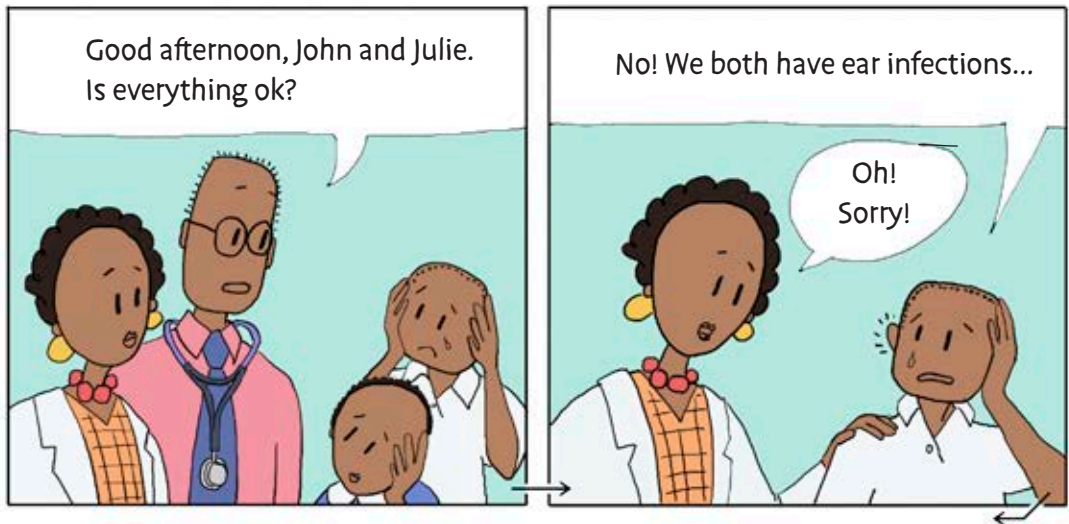
- An **INFORMED** *choice* is a choice made when you understand the information that you have.
- An **ADVANTAGE** *of a treatment* is something about a treatment that you think is good.
- A **DISADVANTAGE** *of a treatment* is something about a treatment that you think is bad.

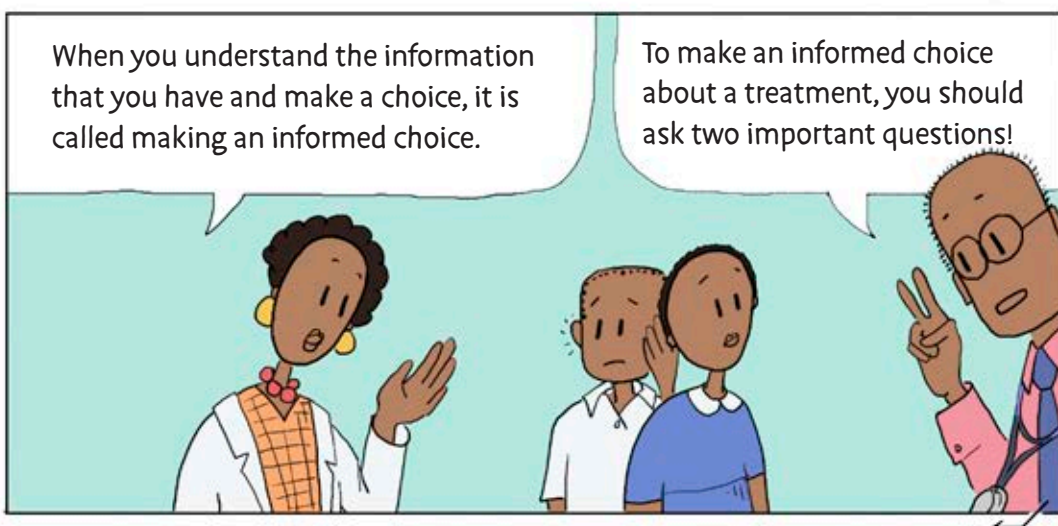
People in this lesson



THE CLINIC







INFORMATION *about treatments* is what we are told or learn about treatments.

IN LUGANDA: “Obubaka ku by’obujjanjabi”

IN KISWAHILI: “Ambukizo” au “Amakuru”

An **INFORMED** *choice* is a choice made when you understand the information that you have.

IN LUGANDA: “Okusalawo okukolebwa nga omuntu asoose kutegeera ensonga zonna ezikwata ku ky’asalawo”

IN KISWAHILI: “Ambukizo”

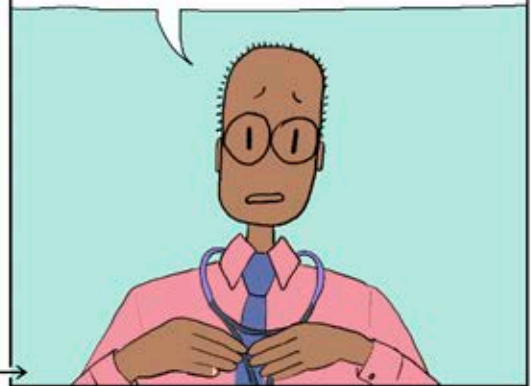
First you should ask:
What are the **advantages** and **disadvantages** of the treatment?



The advantages are what you think
is good about the treatment.



The disadvantages are what
you think is bad.



An **ADVANTAGE** of a treatment
is something about a treatment
that you think is good.

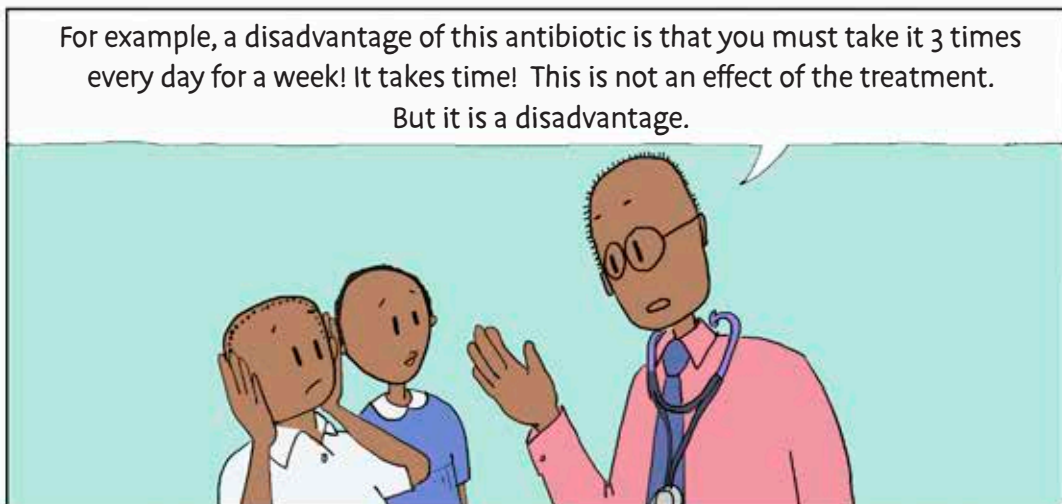
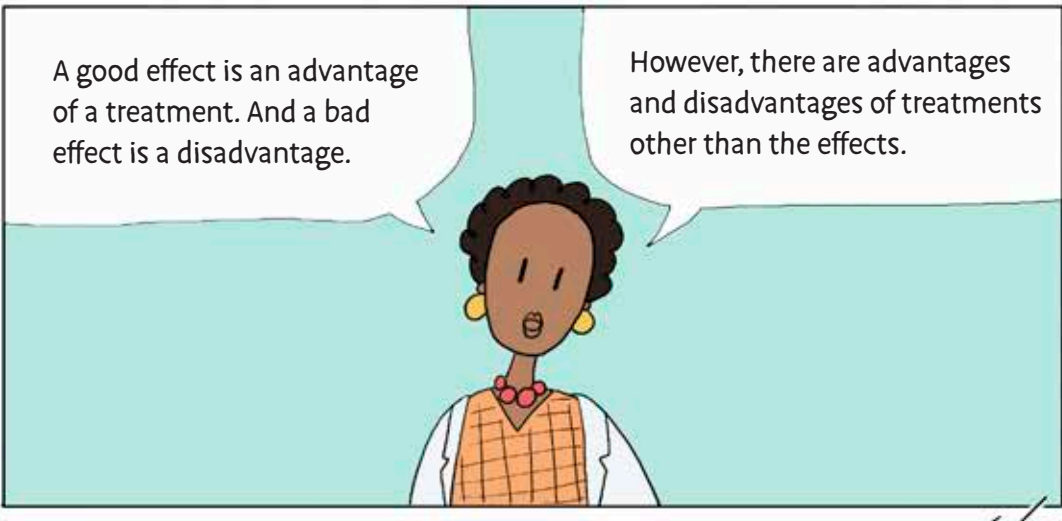
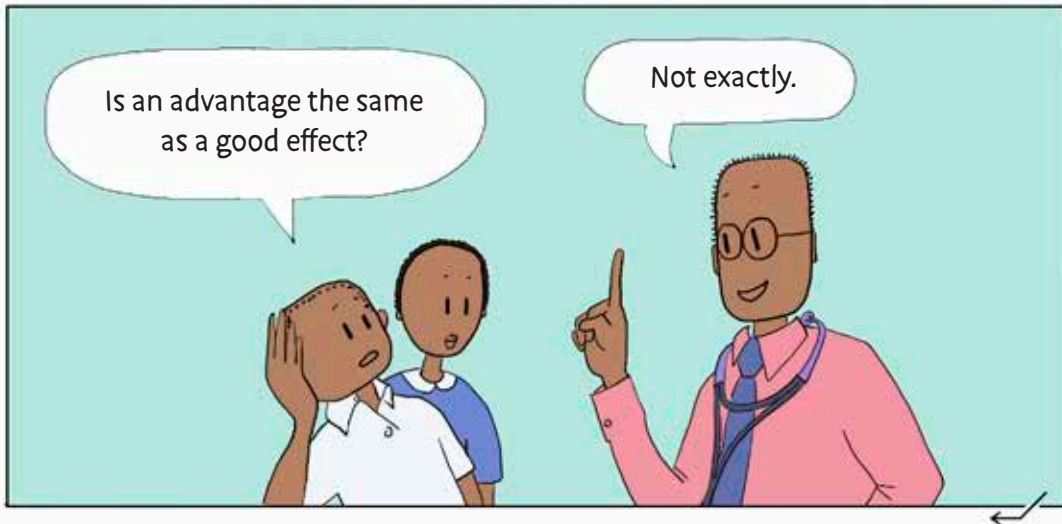
IN LUGANDA: “Ekirungi ku bujjanja-
bi obumu oba obulala”

IN KISWAHILI: “Manufaa”

A **DISADVANTAGE** of a treatment
is something about a treatment
that you think is bad.

IN LUGANDA: “Ekitali kirungi ku
bujjanjabi obumu oba obulala” oba
“Ekibi ku bujjanjabi obumu oba
obulala”

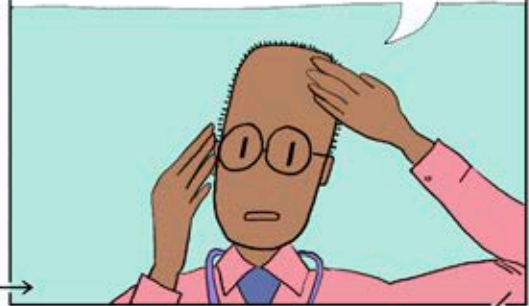
IN KISWAHILI: “Kwa madhara”



The most important advantage of the antibiotic is that it sometimes makes an infection go away faster.



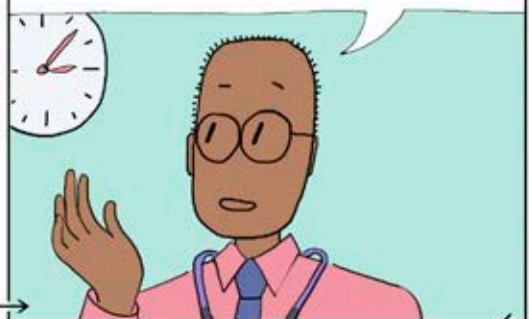
If the infection goes away, the pain and fever go away!



However, most times, the infection will go away without any medicine.



Sometimes it takes longer for the infection to go away without medicine. But sometimes it takes the same amount of time!



An important disadvantage of the antibiotic is that it sometimes makes you sick. It can make you vomit or give you diarrhea.



Finally, you should ask what is most important to you.



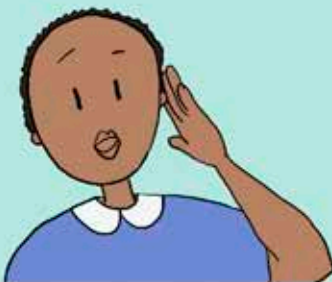
My ear infection is very painful
and I have a fever.



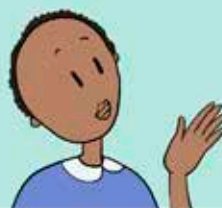
So the advantages of the antibiotic
are most important to me. I want to
take the antibiotic.



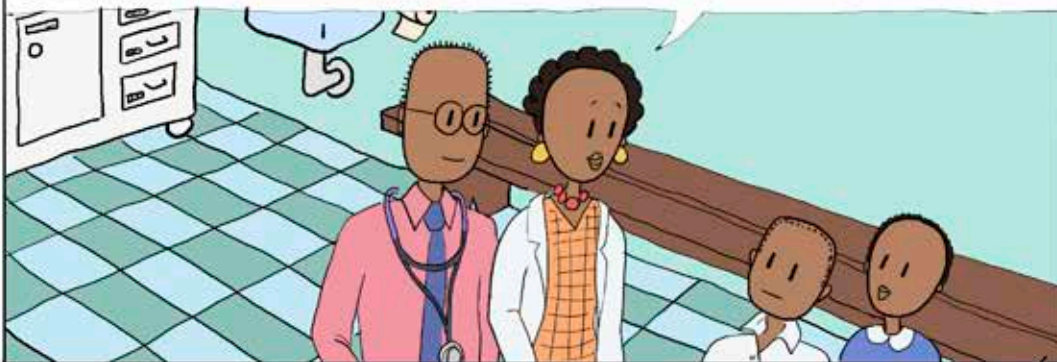
I do not want to get sick! And my
infection is not so painful!



The disadvantages of the antibiotic
are most important to me! I do not
want to take the antibiotic!



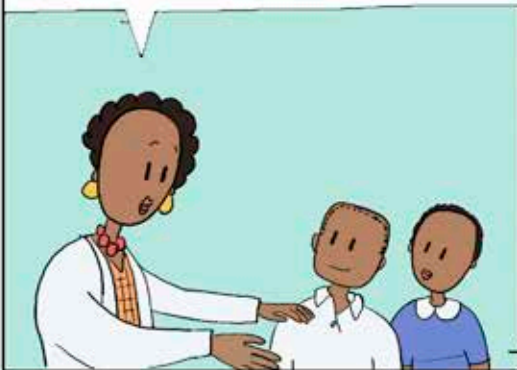
So you see, John and Julie, when people make informed choices like you are now, there is no right choice for everyone...



There is only the right choice for each person! What is most important to one person is not always the same as what is most important to another person.



But John, before you take the antibiotic, first ask your mother about it.

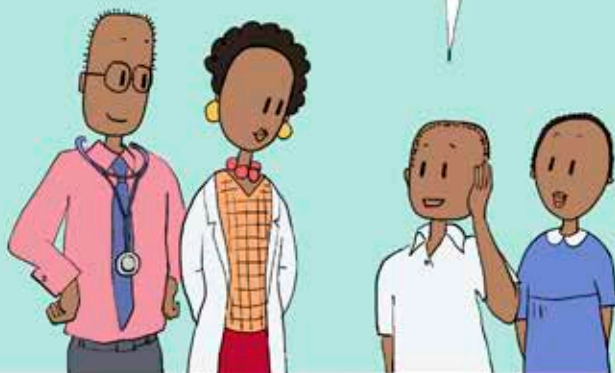


You are only children.

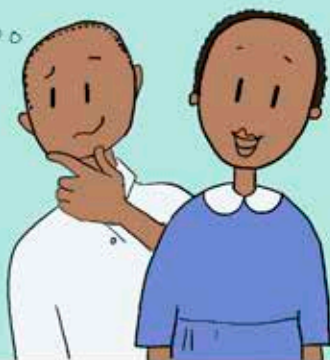


Thank you for teaching us so many important lessons, Professors.

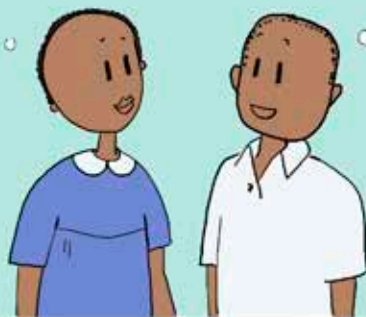
From now on, we will think carefully about treatments.

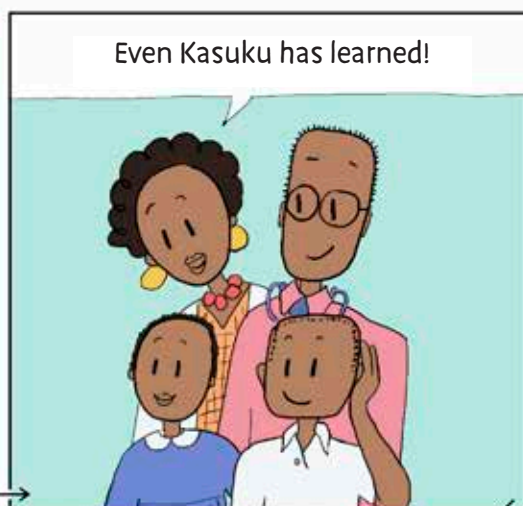
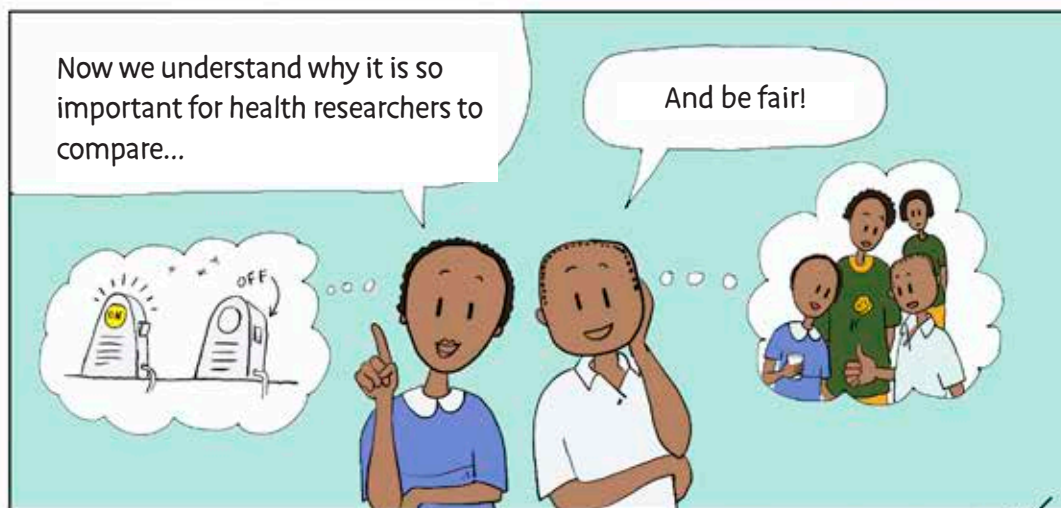


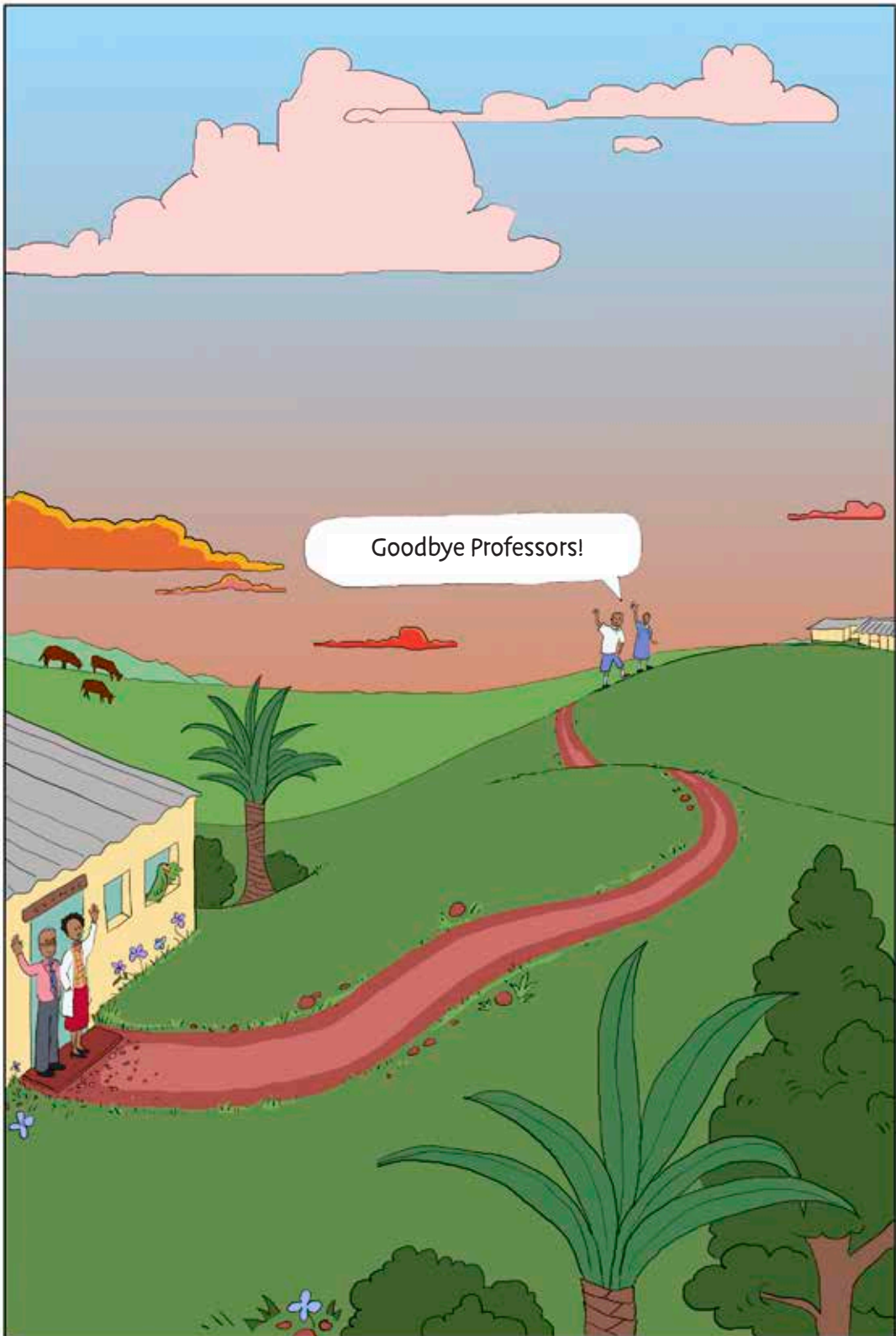
We will ask questions about what people say.



And we will make informed choices for ourselves.







EXTRA EXAMPLE

These are extra examples of what you learned in the chapter.

Extra example of two people making different choices because of what is most important to each of them.

Treatment A:

Getting surgery for a broken bone

Advantage: Can make the bone heal faster

Disadvantage: Costs a lot of money and you can get an infection

Treatment B:

Not getting surgery for a broken bone

Advantage: Does not cost anything

Nelson's choice: Nelson chooses to get the surgery because he is a basketball player and it is most important to him that he can play again soon.

Rhona's choice: Rhona chooses not to get the surgery because she would rather wait and save the money, and she does not want to take the chance of getting an infection.

ACTIVITY



Instructions

Objective: Imagine making the right choice for yourself by thinking carefully about the advantages and disadvantages.

The advantages and disadvantages are listed on the next page.

Step 1: The children imagine they have a painful ear infection like John has in the story.

Step 2: Led by the teacher, children discuss which advantage or which disadvantage of each treatment is most important to each of them.

Remember, most treatments have good and bad effects.

Step 3: The teacher reads all of the advantages and disadvantages.

Step 4: The children raise their hand when the teacher says the advantage or disadvantage that would be most important to them if they had an ear infection like John's.

Step 5: The children discuss with the other children on their bench which treatment they would use and why.

More instructions →

ACTIVITY



Step 6: The teacher asks who would choose to use the antibiotic.

Step 7: Children who would use the antibiotic stand up.

Step 8: All children sit down.

Step 9: The teacher asks who would not use the antibiotic.

Step 10: Children who would not use the antibiotic stand up.

Step 11: All children sit down.

Step 12: The children imagine that they have a less painful ear infection like the one Julie has in the story.

Step 13: Repeat steps 6 to 11.

More instructions →



Treatment 1: Taking an antibiotic

Advantages of taking the antibiotic:

- It sometimes makes pain and fever from an infection go away faster.

Disadvantages of taking the antibiotic:

- It sometimes gives people diarrhoea or makes them vomit.
- It tastes bad.
- You must take it several times each day for several days.
- It costs some money.

Treatment 2: Not taking an antibiotic

Advantages of not taking the antibiotic:

- It does not give people diarrhea or make them vomit.

Disadvantages of not taking the antibiotic:

- It will not make the pain or fever go away faster.

EXERCISE 1

Write what the words mean. Remember that the meanings of the words are in the back of the book.

Example:

What is a “fair” comparison of treatments?

A comparison where the only important difference is the treatments.

1. What is an “informed choice”?

2. What is an “advantage” of a treatment?

3. What is a “disadvantage” of a treatment?

EXERCISE 2

Tick whether each point is true or false.

Example:

If a comparison is big enough, it is not important whether it is fair.

☐ True ☒ False

1. Costing a lot of money is an advantage of a treatment.

☐ True ☐ False

2. A good effect is an advantage of a treatment.

☐ True ☐ False

3. When two people make informed choices that means they are making the same choice.

☐ True ☐ False

4. An advantage to one person can be a disadvantage to another person.

☐ True ☐ False

5. Disadvantages of a treatment are always more important than the advantages.

☐ True ☐ False

9

What is most important
to remember from this book



This final lesson is a review of everything you have learned.

In **Lesson 1**, you learned the meanings of “health,” “treatment” and “effect”.

And you learned what this book is about.



What is “health”?



What is a “treatment”?



What is an “effect” of a treatment?



Why should you think carefully before choosing whether to use a treatment?

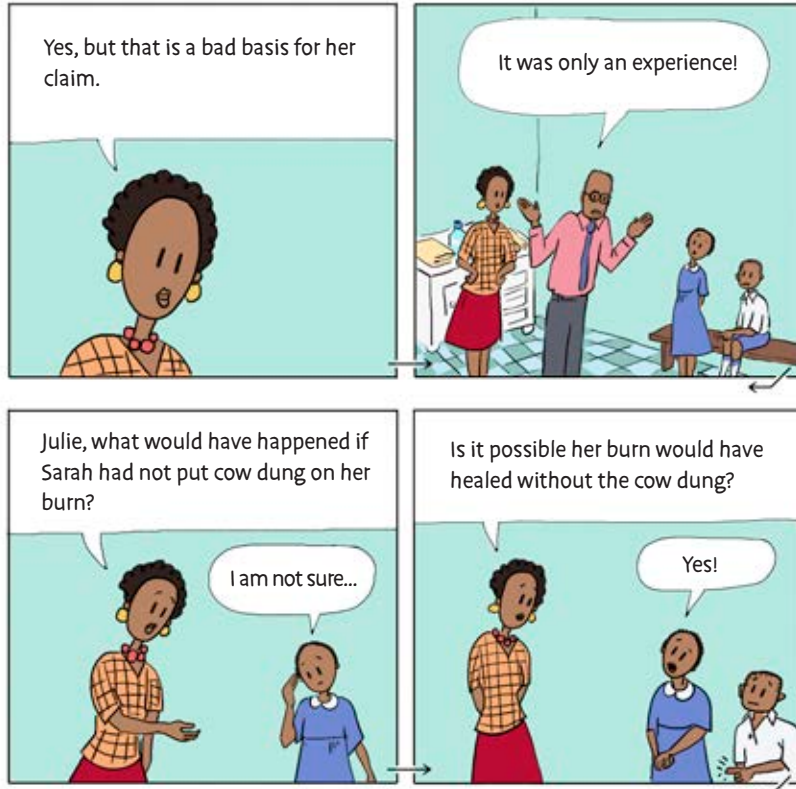
In **Lesson 2**, you learn the meanings of “claim,” “unreliable” and “basis”.

You learned that a claim with a bad basis is an unreliable claim.

You learned that someone’s personal experience using a treatment is a bad basis for claims about the effects of the treatment.

In the story, John and Julie went to the clinic, where they met the Professors.





Discuss:

What is a “claim”?

What is the “basis” for a claim?

Why was Sarah’s claim unreliable?

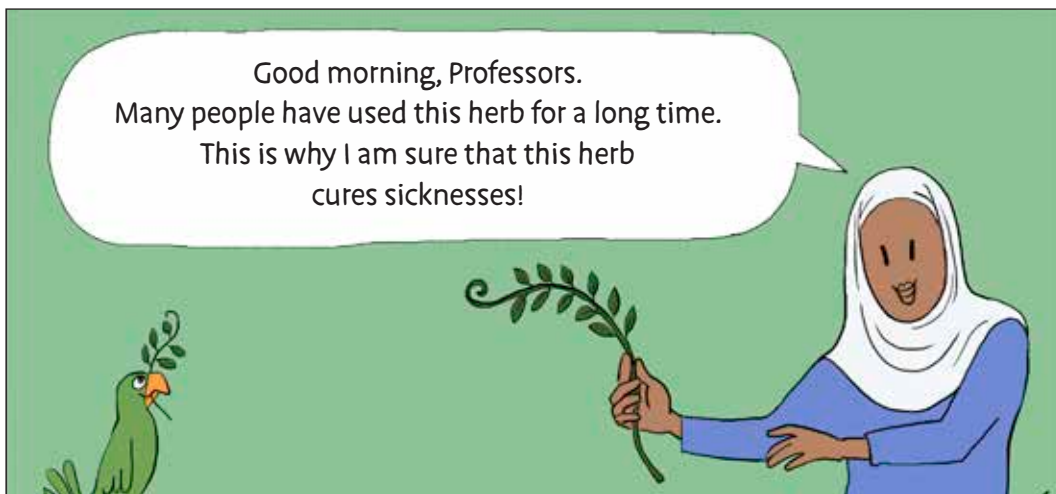
What should you always ask when you hear a claim about the effects of a treatment?

In **Lesson 3**, you learned about two more bad bases for claims about the effects of treatments.

You learned that how long people have used a treatment or how many people have used it is a bad basis for claims about the effects of the treatment.

And you learned that how new a treatment is or how much money it costs is a bad basis for claims about the effects of the treatment.

In the story, the Professors visited John and Julie at their school.





Discuss:

Why was Ruth's claim unreliable?

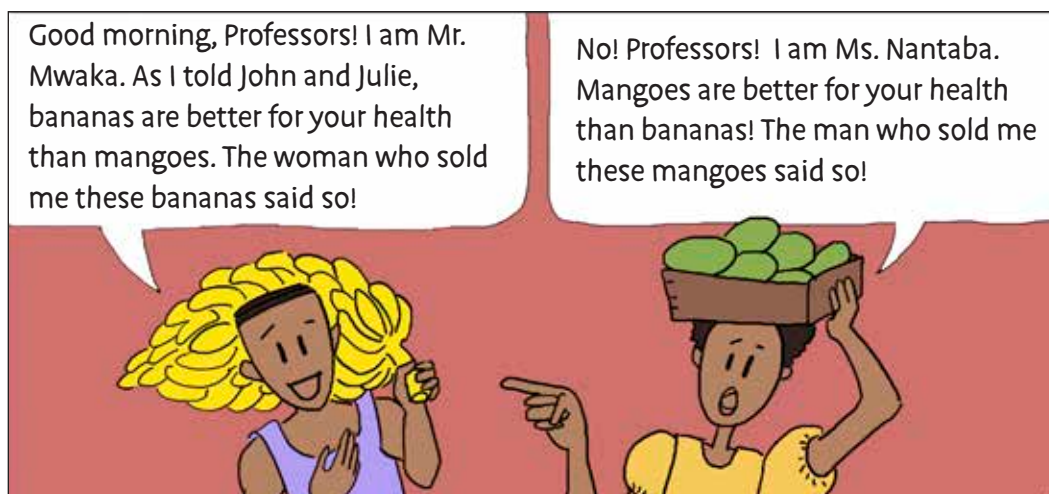
Why was Ahmed's claim unreliable?

In **Lesson 4**, you learned about two more bad bases for claims about the effects of a treatment.

You learned that someone selling a treatment saying something about it is a bad basis for claims about the effects of the treatment.

And you learned that an expert saying something about a treatment is a bad basis for claims about the effects of the treatment.

In the story, John and Julie met the Professors at the market.



Good morning, Professors! This small electric machine makes a sound so mosquitoes go away! It stops you from getting malaria! I am sure because an **expert** told me! This expert knows a lot about mosquitoes!



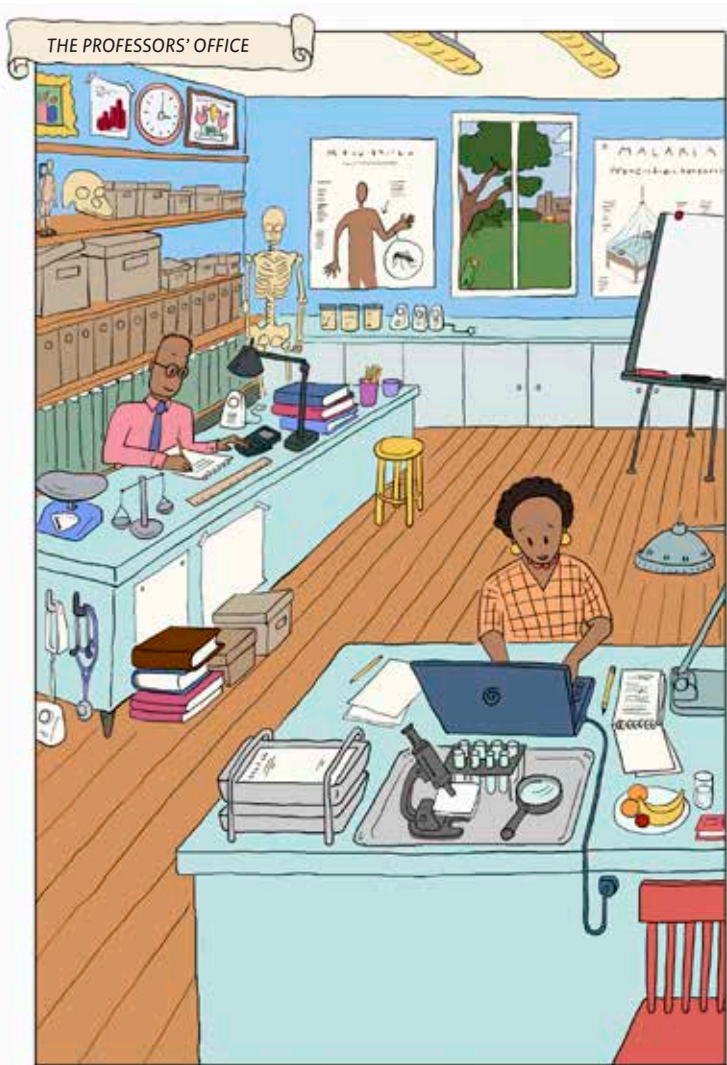
Discuss:

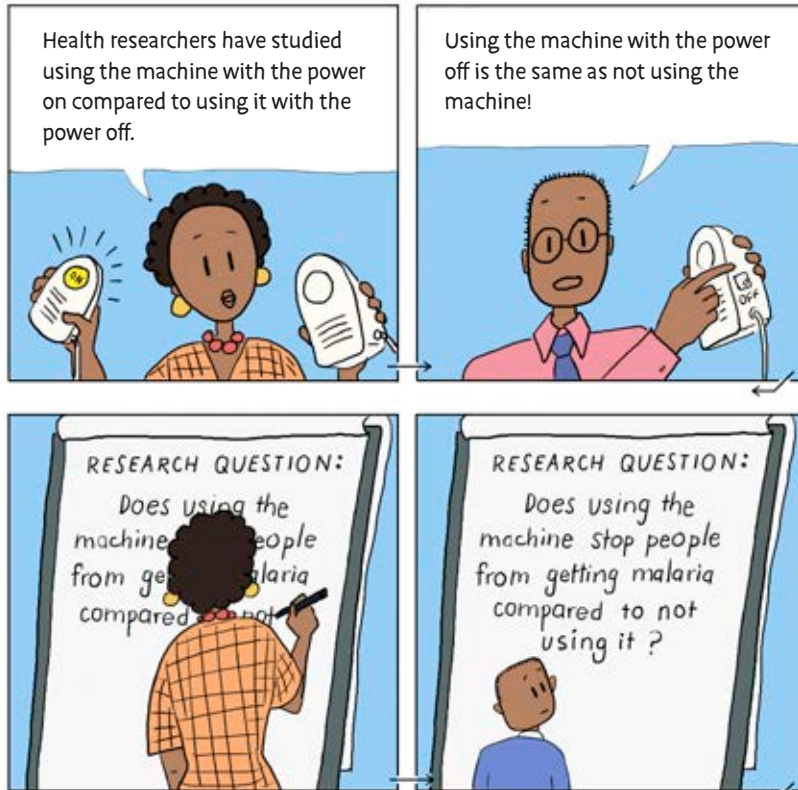
Why were Mr. Mwaka's and Ms. Nantaba's claims unreliable?

Why was Ms. Namuli's claim unreliable?

In **Lesson 5**, you learned about why health researchers must compare treatments.

In the story, John and Julie visited the Professors at their office.





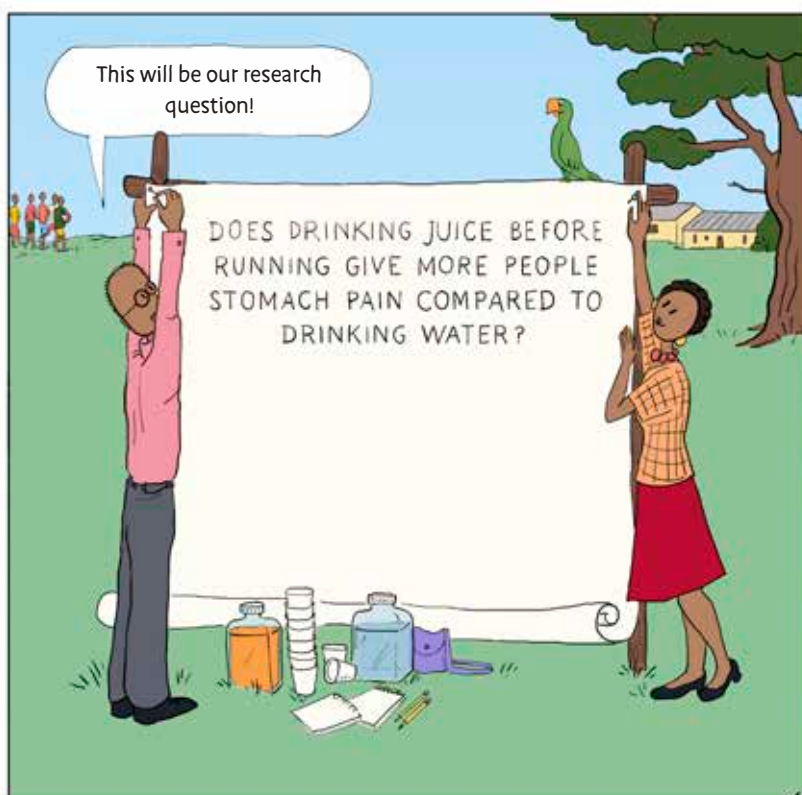
Discuss:

Why do health researchers study treatments by comparing them?

In **Lesson 6**, you learned about the meaning of a “fair” comparison of treatments.

You learned why and how health researchers should be fair when comparing treatments.

In the story, the Professors visited John and Julie at the field in John and Julie’s village.





Discuss:

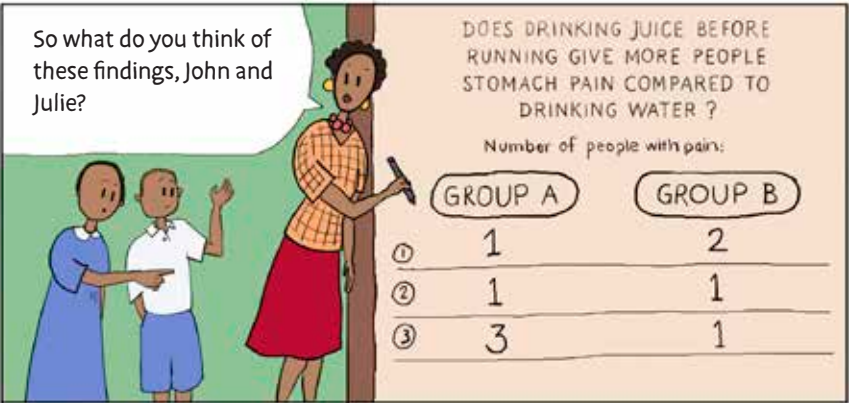
What is a “fair” comparison of treatments?

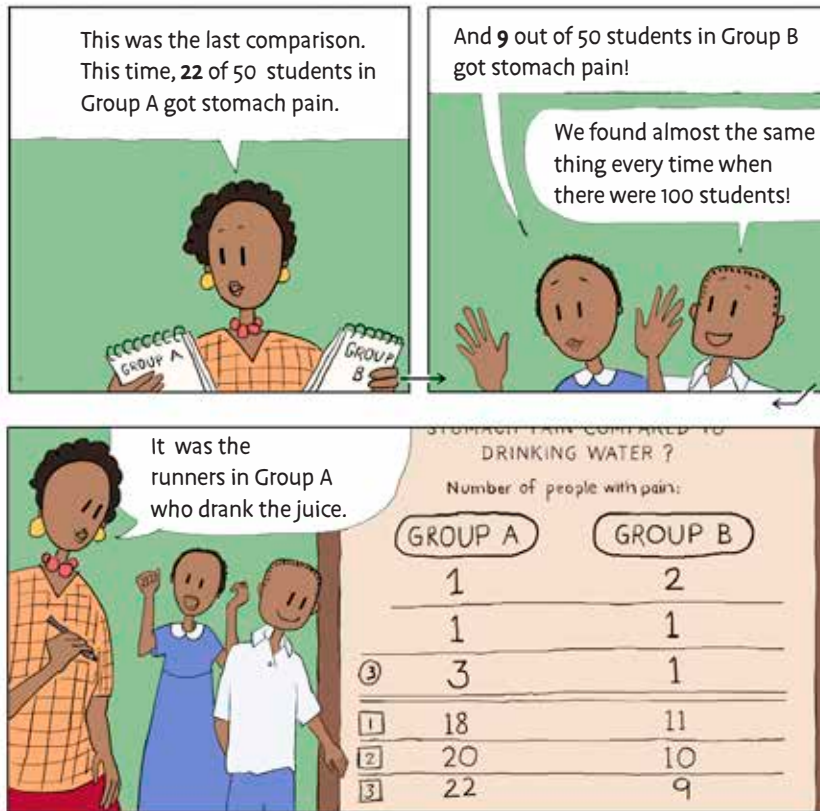
Why should health researchers be fair when they compare treatments?

How should health researchers be fair when they compare treatments?

In **Lesson 7**, you learned about why health researchers must give treatments to many people when they compare treatments.

In the story, John and Julie met the Professors at the field at the university.





Discuss:

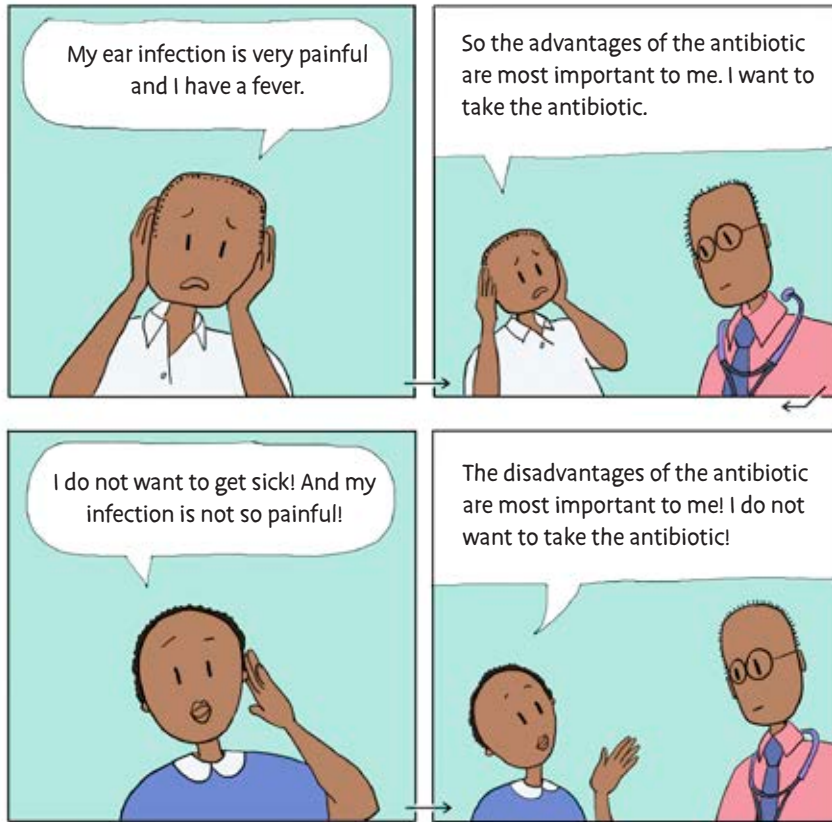
Why must health researchers make many fair comparisons with many people?

In **Lesson 8**, you learned about two questions that you should ask before choosing whether to use a treatment.

In the story, the Professors found John and Julie at the clinic.

John and Julie were there because they both had ear infections.





Discuss:

What are the two questions that you should always ask before choosing whether to use a treatment?

Why should you ask these questions?

On the next page, there is a list of what is most important to remember from this book.

You can use the list for making choices of treatments.

And you can use it to teach other people about what you have learned.

Remember that there is much more to learn about claims about treatments, comparisons of treatments, and choices of treatments.



Remember!

- **Think carefully before choosing whether to use a treatment.**
 - **Most treatments have both good and bad effects.**
 - **What someone says about a treatment can be wrong.**
-

CLAIMS about treatments

When you hear a claim about the effects of a treatment, always ask:

- **What is the basis for the claim?**

If the basis for the claim is bad, the claim is unreliable.

These are bad bases for claims about the effects of a treatment:

1. Someone's personal experience using the treatment
 2. How long the treatment has been used or how many people have used it
 3. How much money the treatment costs or how new it is
 4. That someone selling the treatment says something about it
 5. That an expert says something about the treatment, if not based on fair comparisons
-

COMPARISONS of treatments

If the basis for the claim is good, the claim is reliable.

Fair comparisons are a good basis for claims about the effects of treatments.

This is how health researchers make a fair comparison:

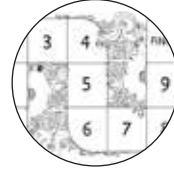
1. They compare one treatment to another treatment or to no treatment.
 2. They choose who gets which treatment by chance (like flipping a coin).
 3. They do not let anyone know who got which treatment until the end.
 4. They give the treatments to many people, so what they find is not by chance.
-

CHOICES of treatments:

When you choose whether to use a treatment, always ask:

- **What are the advantages and disadvantages of the treatment?**
 - **What is most important to me?**

ACTIVITY
CLASS DISCUSSION



Instructions

Objective: Remember what is most important to learn from this book.

Step 1: Each child turns their book around so the game board is facing up.

Step 2: The teacher divides children into pairs and names one child in each pair Player 1 and the other child Player 2.

Step 3: Each child picks something to use as their game piece and places it on the “START” square on the board--for example a small rock, a coin or a bottle cap.

The teacher has a list of questions.

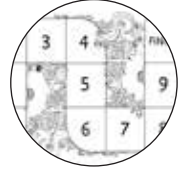
Step 4: The teacher asks one of the questions.

Step 5: In each pair, Player 1 tells Player 2 what they think the answer is.

Step 6: The teacher explains the right answer.

Step 7: In each pair, if Player 1 gave the right answer, that child gets to move their piece one square forward.

ACTIVITY
CLASS DISCUSSION



Step 8: Repeat steps 4 to 7, except this time Player 2 answers.

When a child reaches the “FINISH” square, they win. That pair starts over.

Example

Teacher: “Do most treatments only have good effects, only have bad effects or have both good and bad effects?”

Player 1 on each bench gives their answer to Player 2.

Teacher: “The right answer is that most treatments have both good and bad effects! Remember the example of using an antibiotic. Using the antibiotic can make an infection go away faster, but it can also make you sick.”

Player 1 on each bench moves their piece one square forward if they gave the right answer.

EXERCISE

Instructions

Open to the back of your exercise book to where you have collected claims.

Fill in the basis for each claim and tick one of the boxes to show that you think it is reliable or unreliable, or that you are not sure. There is an example on the next page.

Remember, the bases that you have learned about are:

- Someone's personal experience using the treatment
- How long the treatment has been used or how many people have used it
- How much money the treatment costs or how new it is
- That someone selling the treatment said something about it
- That an expert said something about the treatment
- A fair comparison of the treatment to other treatments or no treatment
- An unfair comparison of the treatment to other treatments or no treatment

If you do not know what the basis for a claim is, leave the space empty for that claim.



EXERCISE

Example:

Claim:

Cow dung heals burns!

Treatment:

Putting cow dung on a burn

Effect:

Healing burns

Basis:

Someone's personal experience

Is the claim reliable?

☐ Yes

☒ No

☐ Not sure

EXERCISE

Claim:

Treatment:

Effect:

Basis:

Is the claim reliable?

☐ Yes

☐ No

☐ Not sure

Claim:

Treatment:

Effect:

Basis:

Is the claim reliable?

☐ Yes

☐ No

☐ Not sure

List of important words in this book and the meanings of those words

A

An **ADVANTAGE** *of a treatment*

is something about a treatment that you think is good.

WORDS THAT MEAN THE OPPOSITE: “Disadvantage” → See “D”.

EXAMPLE: “Good effects of a treatment are **advantages** of that treatment. Another **advantage** of some treatments is that they cost little or no money.”

IN LUGANDA: “Ekirungi ku bujjanjabi obumu oba obulala”

IN KISWAHILI: “Manufaa”

B

To **BASE** *a claim on something*

is to support a claim with something..

EXAMPLE: “Sarah’s claim was **based** on her experience.”

IN LUGANDA: “Okusenziira kyoba oyogeddeyogedde kubujjanjabi ku nsonga emu oba endala”

IN KISWAHILI: “Kwa kuzingatia”

The **BASIS** *for a claim*

is the support, foundation or reason for the claim.

EXAMPLE: “Sarah’s experience was the **basis** for her claim”

IN LUGANDA: “Esonga esinzirwako ekyogerwayogerwa”

IN KISWAHILI: “Uasili”

C

(Note that “by CHANCE” has two meanings. Both are in this glossary.)

*Choosing by **CHANCE** who gets which treatment*

is a way of choosing without knowing who will get which treatment.

EXAMPLE: “John and Julie tossed a coin to choose which friends got juice and which friends got water. This way, they chose by **chance** who got juice. John and Julie did not know who would get juice.”

IN LUGANDA: “Omuntu okufuna ekintu lwa lukisakisa gamba nga okukuba akalulu okusalawo ani afuna ekintu ekimu obba ekirala”

IN KISWAHILI: “Kibahati”

*Finding something by **CHANCE** in comparisons that were too small*

is finding something without knowing why it happened because the comparisons were too small.

EXAMPLE: “Health researchers compared two medicines to find out which is better for head pain. They gave one medicine to the first group and another medicine to the second group. People in the first group felt their head pain go away fastest. However, there were too few people in the comparison. It is possible that they found the first medicine was better by **chance**. They could not know why people in the first group felt their head pain go away fastest.”

IN LUGANDA: “Ekintu okuzuulibwa oba okusangibwa lwa mukisa bukisa oba lwa lukisakisa”

IN KISWAHILI: “Kibahati”

A **CLAIM**

is something that someone says that can be right or wrong.

EXAMPLE: “Sarah’s **claim** was that cow dung heals burns. Her **claim** is wrong.”

IN LUGANDA: “Ekintu ekyogerwayogerwa”

IN KISWAHILI: “Madai”



CLAIM!

To **CLAIM**

is to say something that can be right or wrong.

EXAMPLE: “Sarah **claimed** that cow dung heals burns. Her **claim** is wrong.”

IN LUGANDA: “Okwogerayogera ebintu ku kintu”

IN KISWAHILI: “Kudai”

A **COMPARISON** of treatments

is a look at the differences between two or more treatments.

WORDS THAT MEAN THE SAME: “Study of treatments” or “Test of treatments”

EXAMPLE: “Health researchers have made **comparisons** between sleeping under a mosquito net and sleeping without a net.”

IN LUGANDA: “Okugeraageranya okukoleddwa wakati w’obujjanjabi obumu n’obulala”

IN KISWAHILI: “Kilinganisho”

To **COMPARE** treatments

is to look at the differences between two or more treatments.

EXAMPLE: “Health researchers have **compared** sleeping under a mosquito net to sleeping without a net.”

IN LUGANDA: “Okugeraageranya obujjanjabi obumu n’obulala”

IN KISWAHILI: “Kulinganisha”

D

A **DISADVANTAGE** of a treatment

is something about a treatment that you think is bad.

WORD THAT MEANS THE OPPOSITE: “Advantage” → See “A”.

EXAMPLE: “Bad effects of a treatment are **disadvantages** of that treatment. Another **disadvantage** of some treatments is that they cost a lot of money.”

IN LUGANDA: “Ekitali kirungi ku bujjanjabi obumu oba obulala” oba “Ekibi ku bujjanjabi obumu oba obulala”

IN KISWAHILI: “Kwa madhara”

E

An **EFFECT** of a treatment

is something that a treatment makes happen.

EXAMPLE: “Seeing better is an **effect** of wearing glasses.”

IN LUGANDA: “Ekivaamu mukufuna oba okukozesa obujanjabi”

IN KISWAHILI: “Tokeo”

An **EXPERT**

is someone who knows a lot about something.

EXAMPLE: “An herbalist is an **expert** in herbal medicine, but herbalists can be wrong. All **experts** can be wrong.”

IN LUGANDA: “Kakensa” oba “Kafulu”

IN KISWAHILI: “Mtaalam”

F

A **FAIR** comparison of treatments

is a comparison where the only important difference is the treatments.

WORDS THAT MEAN THE OPPOSITE: “Unfair comparison” → See “U”

EXAMPLE: “Health researchers compared sleeping under a mosquito net to sleeping without a net. The people in the one group were similar to the people in the other group. It was a **fair** comparison because the only important difference between the groups was whether people slept under a net or not.”

IN LUGANDA: “Okugeraageranya obujanjabi obumu n’obulala okw’obwenkanya”

IN KISWAHILI: “Mithilisho halisi”

To **FIND** something after a comparison

is to find a difference or similarity.

EXAMPLE: “Health researchers **found** that fewer people got malaria of those who slept under nets.”

IN LUGANDA: “Okuzuula ensonga oba ekintu oluvannyuma lw’okukola okugeraageranya wakati w’ekintu ekimu n’ekirala”

IN KISWAHILI: “Gundua”

A **FINDING** from a comparison

is a difference or similarity found after a comparison.

EXAMPLE: “The health researchers’ **finding** was that fewer people got malaria of those who slept under nets.”

IN LUGANDA: “Ekizuuliddwa oba ekisangiddwa oluvanyuma lw’okukola okugeraageranya”

IN KISWAHILI: “Matokeo”

H

Your **HEALTH**

is how well your body and mind are.

EXAMPLE: “Julie’s **health** is good because she is free from sicknesses and injuries. John has an infection, so his **health** is worse than Julie’s.”

IN LUGANDA: “Eby’obulamu”

IN KISWAHILI: “Afya”

A **HEALTHCARE CHOICE**

is a choice about how to care for your health or others’ health.

EXAMPLE 1: “When you choose to use a treatment, you are making a **healthcare choice**.”

EXAMPLE 2: “When the government chooses which treatments to pay for and give people, they are making a healthcare choice.”

IN LUGANDA: “Okusalawo ku nsonga z’ebyobulamu”

IN KISWAHILI: “Uduma ya kiafya”

HEALTH RESEARCH

is the careful studying of health to find out more about health.

EXAMPLE: “Health researchers carefully compared sleeping under mosquito nets to sleeping without nets. By doing this **health research**, they found out more about the effects of sleeping under a net.”

WORDS THAT MEAN THE SAME: “Health science”

IN LUGANDA: “Okunoonyereza kuby’obulamu okw’ekikugu”

IN KISWAHILI: “Utafiti wa afya”

A HEALTH RESEARCHER

is someone who carefully studies health to find out more about health.

EXAMPLE: “Some **health researchers** study the effects of treatments on our health. For example, they have carefully compared sleeping under mosquito nets to sleeping without nets. By doing this, they found out more about the effects of sleeping under a net.”

WORDS THAT MEAN THE SAME: “Health scientist”

IN LUGANDA: “Abasawo abakugu abanoonyereza kuby’obulamu”

IN KISWAHILI: “Mdadisi wa afya”

HEALTH SCIENCE

→ See “Health research” above.

A HEALTH SCIENTIST

→ See “Health researcher” above.

I

An INFECTION

is a disease caused by germs.

EXAMPLE: “John got an **infection** in his finger after putting cow dung on it.”

IN LUGANDA: “Obulwadde”

IN KISWAHILI: “Ambukizo”

INFORMATION *about treatments*

is what we are told or learn about treatments.

EXAMPLE: “Health researchers’ findings are **information** about treatments.”

IN LUGANDA: “Obubaka ku by’obujjanjabi”

IN KISWAHILI: “Ambukizo” or “Amakuru”

An **INFORMED** *choice*

is a choice made when you understand the information that you have.

EXAMPLE: “Health researchers compared using an antibiotic to not using one. John and Julie understood the health researchers’ findings. They made **informed choices** about whether to use the antibiotic.”

IN LUGANDA: “Okusalawo okukolebwa nga omuntu asoose kutegeera en-songa zonna ezikwata ku ky’asalawo”

IN KISWAHILI: “Ambukizo”

M

To **MEASURE**

is to look at how much there is or how many there are of something.

EXAMPLE: “Health researchers compared sleeping under a mosquito net to sleeping without a net. They **measured** how many people got malaria.”

IN LUGANDA: “Okupima” oba “Okubala”

IN KISWAHILI: “Kupima”

To **MISLEAD**

is to make someone think something is right when it is wrong.

WORD THAT MEANS THE SAME: “Confuse” or “Fool”

EXAMPLE: “An unreliable claim can **mislead** you.”

IN LUGANDA: “Okubuzaabuza”

IN KISWAHILI: “Kupotosha”

P

A **PERSONAL EXPERIENCE** *using a treatment*

is something that happened to someone after using a treatment.

EXAMPLE: “Sarah claims cow dung heals burns. Her claim is based on her **personal experience** putting cow dung on a burn. Her claim is wrong.”

IN LUGANDA: “Ekintu ky’oyiseemu nga omuntu ssekinnoomu mukufuna obujjanjabi” oba “Omuntu kyabeera afunye oba kyalabye oba kyawulidde mubulamu bwe nga omuntu ssekinnoomu oluvannyuma lw’okufuna oba okukozesa obujjanjabi obumu oba obulala”

IN KISWAHILI: “Ujuzi”

A **PROFESSOR**

is a teacher or researcher at a university.

EXAMPLE: “**Professor** Fair and **Professor** Compare teach at the university. They teach students who are studying to become doctors and health researchers. The **Professors** do health research as well.”

IN LUGANDA: “Omukenkufu” oba “Pulofeesa”

IN KISWAHILI: “Profesa”

R

A **RELIABLE** *claim*

is a claim with a good basis.

WORDS THAT MEAN THE OPPOSITE: “Unreliable” → See “U”.

EXAMPLE: “Mosquito nets stop people from getting malaria. This is a **reliable** claim because it is based on fair comparisons.”

IN LUGANDA: “Ekyogerwayogerwa ekyesigika”

IN KISWAHILI: “Ya maana”

RESEARCH

is the careful studying of something to find out more about that something.

WORD THAT MEANS THE SAME: “Science”

EXAMPLE: “Professor Fair and Professor Compare do **research** about treatments to find out more about their effects.”

IN LUGANDA: “Okunoonyereza okwasaayansi okw’ekikugu”

IN KISWAHILI: “Utafiti”

A RESEARCH QUESTION

is a question that researchers try to answer.

EXAMPLE: “The **research question** was: Does sleeping under mosquito nets stop people from getting malaria?”

IN LUGANDA: “Ensonga enoonyerezebwako” oba “Ekibuuzo abanoonyereza kyebaba bagezaako okuddamu oba okuzuula” oba “Ensonga abanoonyereza gyebabeera bagezaako okwekenneenya”

IN KISWAHILI: “Swali la utafiti”

A RESEARCHER

is someone who carefully studies something to find out more about it.

WORD THAT MEAN THE SAME: “Scientist”

EXAMPLE: “Professor Fair and Professor Compare are **researchers** who study treatments to find out more about the effects. ”

IN LUGANDA: “Omuntu anoonyereza mungeri eya saayansi ey’ekikugu”

IN KISWAHILI: “Mtafiti”

S

SCIENCE

→ See “Research” above.

A SCIENTIST

→ See “Researcher” above.

To be **SURE** *about the effects of a treatment*

is when you have very little doubt about the effects of a treatment.

WORDS THAT MEANS THE SAME: “Certain” or “Confident”

EXAMPLE: “We cannot be completely **sure** about the effects of most treatments.”

WORDS THAT MEANS THE OPPOSITE: “Unsure” or “Uncertain”

IN LUGANDA: “Obukakafu ku kiki ekiva mu kufuna obujjanjabi obumu oba obulala”

IN KISWAHILI: “Kuwa na uhakika”

T

A **TREATMENT**

is something you do for your health.

EXAMPLE: “Wearing glasses is a **treatment**.”

IN LUGANDA: “Obujjanjabi” oba “Ekintu kyonna ekikolebwa osobole okusigala nga oli bulungi oba weeyongere okubeera obulungi mu nsonga z’ebyobulamu” oba “Ekintu kyonna ekikolebwa okutuwonya oba okuziyiza obulwadde”

IN KISWAHILI: “Tibabu”

U

An **UNFAIR COMPARISON** *of treatments*

is a comparison where there are other important differences than the treatments.

WORDS THAT MEAN THE OPPOSITE: “Fair comparison” → See “F”.

EXAMPLE: “Health researchers compared sleeping under a mosquito net to sleeping without a net. The people in the first group lived in an area where there are very few mosquitoes. It was an **unfair comparison** because there was an important difference between the groups other than the treatments.”

IN LUGANDA: “Okugeraageranya obujjanjabi obumu n’obulala okutali kwabwenkanya oba okulimu okubbira”

IN KISWAHILI: “Mithilisho isiyo halisi”

An **UNRELIABLE** *claim*

is a claim with a bad basis.

WORDS THAT MEAN THE OPPOSITE: “Reliable” → See “R”.

EXAMPLE: “Sarah claimed that cow dung heals burns. The basis for her claim was her experience putting cow dung on a burn. Her claim was **unreliable** because it was only based on an experience.”

IN LUGANDA: “Ekyogerwayogera ku kintu nga tekyesigika”

IN KISWAHILI: “Kutokuwa na uhakika”

Remember!

- **Think carefully before choosing whether to use a treatment.**
 - **Most treatments have both good and bad effects.**
 - **What someone says about a treatment can be wrong.**



CLAIMS about treatments

When you hear a claim about the effects of a treatment, always ask:

- **What is the basis for the claim?**

If the basis for the claim is bad, the claim is unreliable.

These are bad bases for claims about the effects of a treatment:

1. Someone's personal experience using the treatment
2. How long the treatment has been used or how many people have used it
3. How much money the treatment costs or how new it is
4. That someone selling the treatment says something about it
5. That an expert says something about the treatment, if not based on fair comparisons

COMPARISONS of treatments

If the basis for the claim is good, the claim is reliable.

Fair comparisons are a good basis for claims about the effects of treatments.

This is how health researchers make a fair comparison:

1. They compare one treatment to another treatment or to no treatment.
2. They choose who gets which treatment by chance (like flipping a coin).
3. They do not let anyone know who got which treatment until the end.
4. They give the treatments to many people, so what they find is not by chance.

CHOICES of treatments:

When you choose whether to use a treatment, always ask:

- **What are the advantages and disadvantages of the treatment?**
 - **What is most important to me?**

This book is dedicated to David Sackett.

David Sackett, who passed away during the development of these resources, was a pioneer in evidence-based medicine. Dave “challenged the medical profession’s long-held reliance on subjective judgment, tradition and authority.”¹ He was a friend, colleague and inspiration to members of the *Informed Health Choices* group. Dave was an artist at making the complex simple.² Writing about his approach to talks, essays and books, he cited Cat’s Cradle by Kurt Vonnegut:

*Any scientist who couldn’t explain to an eight-year-old what he was doing was a charlatan.*³

We have taken this quote seriously in developing these resources. We cannot think of a better way to honour Dave’s memory than dedicating the book to him – except maybe by testing the effects of the book in a fair comparison, which we are doing.

1. Rennie D. David Sackett obituary. The Guardian, 29 May 2015.

2. Sackett DL. David L Sackett: interview in 2014 and 2015. fhs.mcmaster.ca/ceb/docs/David_L_Sackett_Interview_in_2014_2015.pdf

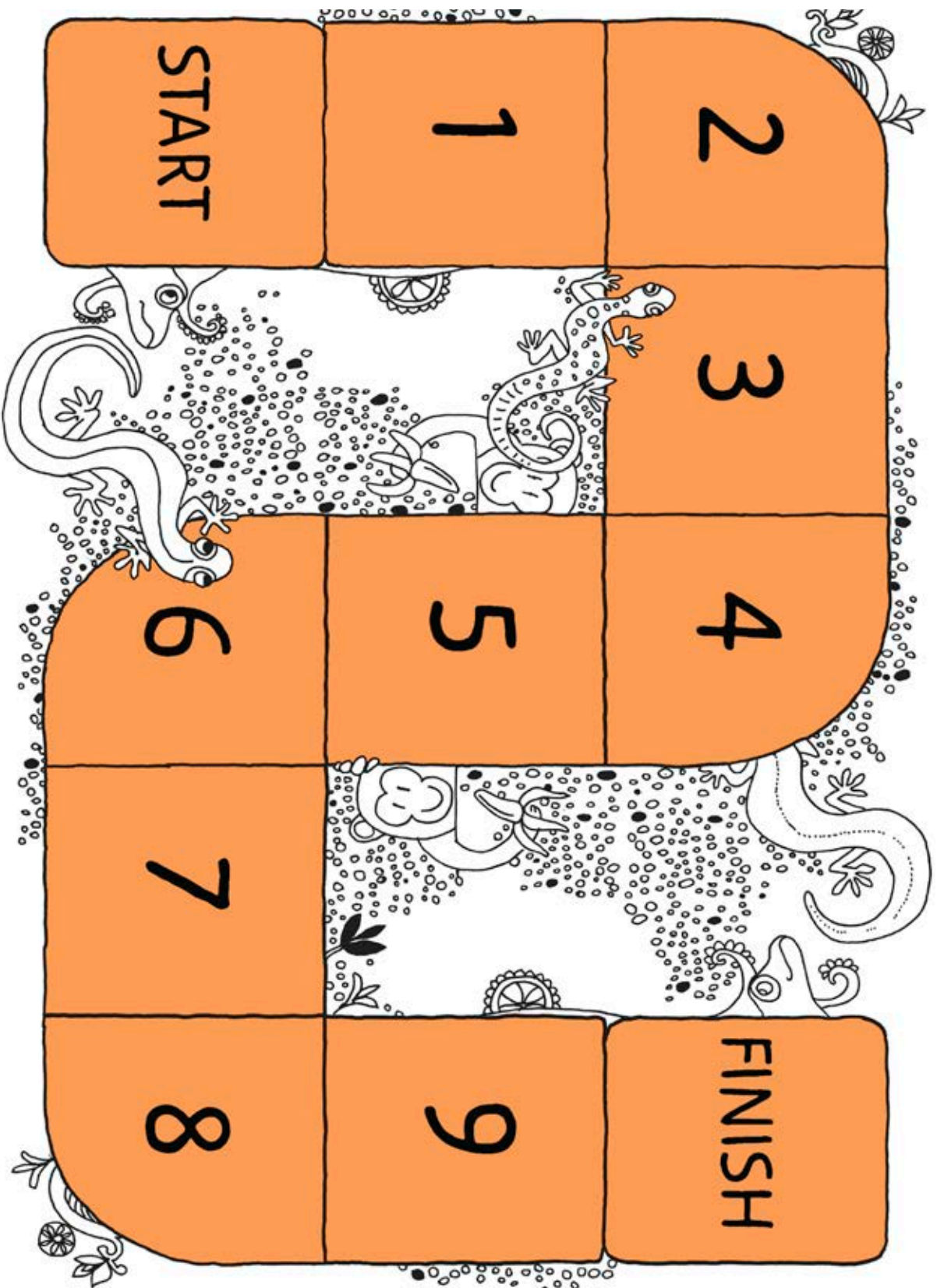
3. Vonnegut K. Cat’s Cradle. New York: Delacorte Press, 1963.

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START

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FINISH