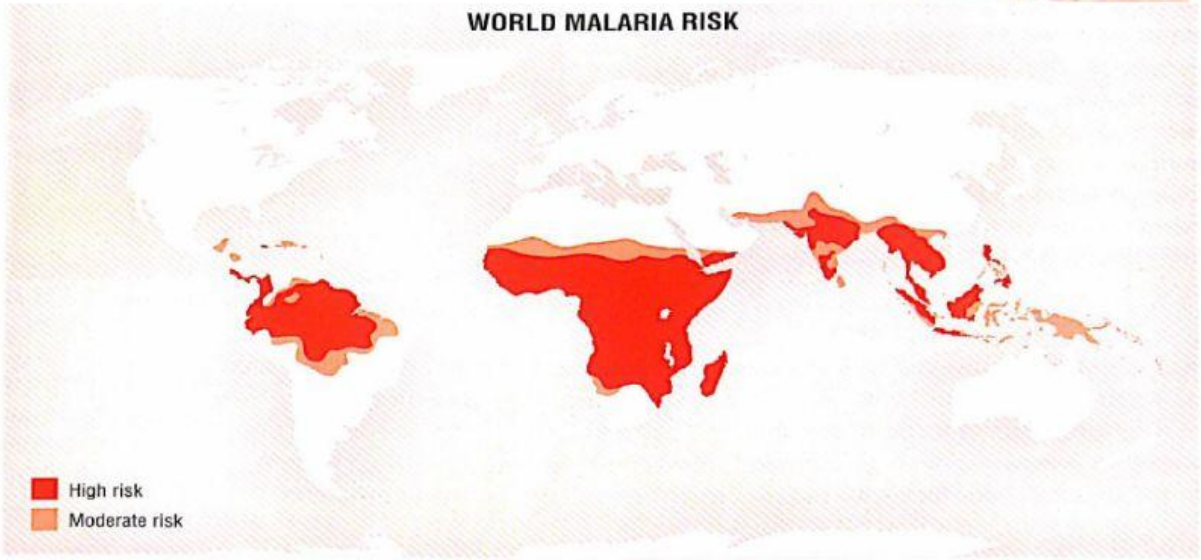
THE BATTLE AGAINST MALARIA

Malaria is a serious health problem. It is a leading cause of death in many countries. It **occurs** mostly in tropical and subtropical parts of the world, including parts of Africa, Asia, South America, Central America, and the Middle East. The place most **intensely** affected by malaria is Africa south of the Sahara Desert. About 60% of the world's malaria cases and 90% of malaria deaths **occur** there. Even though the causes of malaria in this region are well understood, international health agencies are finding that controlling it is still an enormous and difficult task.

THE MALARIA CYCLE

Malaria is passed from mosquitoes to people and from people to mosquitoes in a cycle of events that repeats over and over. The malaria cycle begins with tiny parasites. These parasites **reside** in the bodies of *Anopheles* mosquitoes. These deadly parasites cause malaria. When a female mosquito bites a human, the mosquito draws off blood. It also leaves malaria parasites in the human's skin.

WORLD MALARIA RISK



These parasites quickly multiply inside the human and cause the individual to feel sick. If another mosquito bites a human who is sick with malaria, parasites from the human enter the body of the mosquito. When that mosquito bites another human, it will leave parasites in the other human's skin. In the malaria cycle, humans get parasites from mosquitoes and humans also give parasites to mosquitoes.

EMERGENCY MEDICAL CARE NEEDED

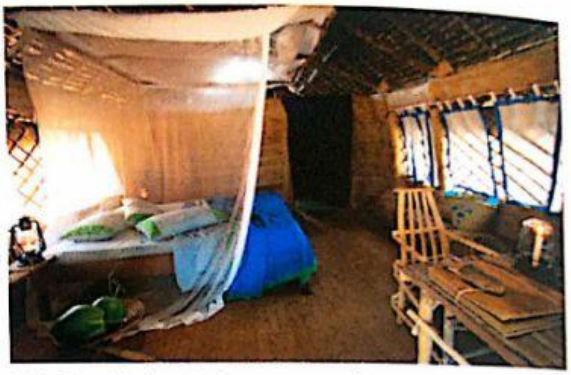
Becoming infected with malaria is a **medical** emergency. The first symptoms—or signs—of malaria are fever, chills, sweating, **intense** headache, and muscle pains. Nausea and vomiting often **accompany** these symptoms. Immediate **medical** treatment must be a **priority** for people who are infected. They must take medicines that will kill the parasites. If **medical** treatment is started soon enough, sick individuals can be cured. If it is not, malaria can cause serious illness or even death.

ONE WAY TO CONTROL MALARIA

Malaria in tropical Africa could be controlled in two ways. First, it could be controlled by killing the parasites that cause the illness. If every infected person quickly took malaria medicine, most would be well in a few days. Mosquitoes could not get malaria parasites from healthy individuals, so malaria would not spread. Unfortunately, many people live in far-away villages without **access** to quick **medical** care. Another problem is that the ability of quinine (the primary medicine used against malaria) to kill parasites has **declined** over time. There is hope, however, for new drug combinations. One, called ACT, is being used successfully to treat people who have malaria.

ANOTHER WAY TO CONTROL MALARIA

Malaria could also be controlled by stopping the mosquitoes. One way would be to get rid of the pools of water where they lay their eggs. Also, insecticide[1] could be sprayed in wet areas and around buildings to kill mosquitoes. Finally, people could be told to sleep under bed nets to prevent mosquitoes from biting them at night. Bed nets sprayed with insecticide would both stop and kill mosquitoes.



A bed net helps to keep mosquitoes away.

PROBLEMS FACING CONTROL

It is very difficult, however, to **implement** these plans. People in this region are poor—and made poorer by malaria because they may be too weak to work. They cannot afford to pay for **medical** care or to buy bed nets. Some people may be unwilling to **cooperate** with government efforts to help them. Their old beliefs about illness may **conflict** with modern attempts to cure or prevent malaria.

There are other problems, too. Health **ministries** may not have the money to build clinics or hire trained **medical practitioners**. They may not have the money to buy insect poisons and pay a **labor** force to spray regularly. And the frequent rainfall in tropical and subtropical regions would make it impossible to get rid of pools of water where mosquitoes lay eggs.

A recent discovery by **medical** scientists may offer a solution to many of these problems. In 2009, the **Ministry** of Health in Senegal arranged for scientists to visit three villages. A tropical illness called "river blindness" was common in these villages. The people were given the medicine ivermectin to treat it. Two weeks after the people had taken the medicine, the scientists found many dead mosquitoes. They discovered that when a mosquito bit a person who had recently taken ivermectin, the mosquito died. It was poisoned by the medicine in the person's blood. Now scientists wonder if malaria could be controlled by **implementing** a program to give this medicine to people every month. They need to find out if taking *ivermectin* every month will be safe. They also are waiting to see if there will be a **decline** in malaria cases in these villages. If it is safe and effective, this medicine could help stop the spread of malaria in sub-Saharan Africa.

Reading Comprehension

Mark each statement as *T* (True) or *F* (False) according to the information in

Write the lines where you found the answer.

	Lines
___ 1. Malaria occurs mostly in tropical and subtropical parts of the world.	
___ 2. Deadly malaria parasites reside in the bodies of mosquitoes.	
___ 3. Intense coughing and sneezing often accompany the fever of malaria.	
___ 4. Old beliefs may conflict with modern ways to cure or prevent illness.	
___ 5. Getting fast medical attention after becoming ill is a priority.	
___ 6. Sleeping under bed nets would lead to a decline in malaria.	
___ 7. Health ministries in some countries often cannot afford to implement plans to control malaria.	
___ 8. Most people in tropical Africa have easy access to medical practitioners.	
___ 9. Educated people are not willing to cooperate with government plans to help them.	
___ 10. A large labor force would be needed to spray insecticide regularly.	

A. *Practitioner* is a formal word to describe someone who practices a specific profession. With a partner, match these practitioners with their descriptions.

___ 1. a practitioner of law	a. a nurse who has had extra training and can perform some services of a doctor
___ 2. a nurse-practitioner	b. someone who teaches others
___ 3. a practitioner of sports	c. someone licensed to represent someone else in legal matters
___ 4. a practitioner of education	d. an athlete

B. With a partner, match each government ministry to its area of responsibility. Take turns making sentences with the information.

*The **Ministry** of Finance is responsible for the national budget.*

a 1. Ministry of Finance	a. the national budget
___ 2. Ministry of Health	b. working conditions in factories
___ 3. Ministry of Labor	c. airlines and trains
___ 4. Ministry of Agriculture	d. hospitals and healthcare practitioners
___ 5. Ministry of Transportation	e. farm products

Now, tell your partner the title of the person in charge of each ministry.

*The **Minister** of Finance is in charge of the Ministry of Finance.*

C. With a partner, decide which of these conditions should be treated medically. Check (✓) your answers.

___ 1. a broken arm	___ 4. an earache	___ 7. choking
___ 2. hair loss	___ 5. a heart attack	___ 8. sneezing
___ 3. a broken fingernail	___ 6. a high fever	___ 9. an eye injury

E. The noun *labor* refers to hard or difficult work. The verb is also *labor*. With a partner, discuss what these people might be doing when they are laboring. Which people are probably paid for their labor? Which ones probably receive no money for their labor?

1. a student
2. a farmer
3. an auto mechanic
4. a cook
5. a housewife
6. a poet
7. a musician
8. a gardener