

BEFORE YOU READ

Read these questions. Discuss your answers in a small group.

1. Have you ever been very sick? What did you do to get well? How long did it take you to get well?
2. What are some ways to prevent an illness?
3. Do you know of any insects that are helpful to humans? How do they help? Do you know of any insects that are harmful to humans? How are they harmful?

READ

This article includes information from the Centers for Disease Control and Prevention (CDC), the principal public health agency in the United States. It was founded in 1946 to help control malaria. Today, the CDC leads public health efforts to prevent and control infectious diseases.

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 80% 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.

Because malaria is passed from mosquitoes to people and from people to mosquitoes, we can think of the disease as a cycle¹. The malaria cycle begins with tiny parasites that **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. These parasites quickly multiply inside the human and cause the individual to feel sick.

If a 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 they also give parasites to mosquitoes.

Becoming infected with malaria is a medical emergency. The first symptoms 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 they do not, malaria can cause serious illness or even death.



Breaking the malaria cycle in Africa

¹ cycle: a series of events that always recur in the same order

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 a new drug combination, called ACT. It is being used successfully to treat people who have 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, insecticide² 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.

² *insecticide*: a poison that kills insects

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. If they are not educated, the 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** do not have the money to build clinics or hire trained medical **practitioners**. They do not have the money to buy insecticide and pay a **labor** force to spray regularly. And the frequent rainfall would make it impossible to get rid of pools of water where mosquitoes lay eggs.

Helping African nations control malaria is now a top priority of many relief organizations. The World Health Organization and Doctors Without Borders are just two of many organizations offering help—and hope—to the people of sub-Saharan Africa.

READING COMPREHENSION

Mark each statement as *T*(True) or *F*(False) according to the information in Reading 1. Use your dictionary to check the meaning of new words.

- 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 poor 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.