

## **Irrigation May be Good for Agriculture, But Bad for Public Health; adding water to some very dry areas can increase malaria risk**

Hello, and welcome to As It Is -- VOA's daily show for people learning everyday American English.

I'm Christopher Cruise in Washington.

Today we have two reports on the disease malaria. We heard about a study that found a link between malaria and irrigation water.

"What happens is that then when you irrigate, there is more, in a sense, more breeding habitats for the mosquito."

We explain why what is good for crops might be increasing the risk of malaria in some very dry areas.

Today, we also learn why many pregnant women are not being protected from the disease...

“...because they are very powerful interventions that could go a long way to reducing the burden of malaria and improving the outcomes, both in pregnant women and, and their infants.”

That story is next. But first, we tell how irrigation water may be partly to blame for a rise in malaria infections...

## **Irrigation in Dry Areas Can Increase Malaria Risk**

A new study describes how irrigation water can lead to an increase in malaria cases that could last for 10 years or more. Malaria is spread by mosquitoes. The insects like to reproduce in standing water. So when a dry area is irrigated, the disease can appear and spread.

Mercedes Pascual is a scientist at the University of Michigan. She and her team studied areas in northern India where irrigation systems were built over a number of years. They compared how malaria progressed with the spread of irrigation.

“What happens is that then when you irrigate, there is more, in a sense, more breeding habitats for the mosquito.”

She and the other scientists found that after farmers began irrigating their crops, the risk of malaria rose sharply. At first her team thought maybe the number of cases rose because there was little effort to control the mosquitoes that spread the disease. But they were wrong.

“In fact, we saw the opposite, that this transition stage was characterized not just by heightened malaria risk, but also by more intervention to control the mosquito vector.”

Even after the mosquito control efforts were in place, the researchers found high rates of malaria continued for 10 years or longer.

Mercedes Pascual suggests that the irrigation project supervisors need to work more on reducing places where mosquitoes might reproduce. She also says health officials may need to try other

methods of malaria prevention that would work for long periods of time.

A report on the study was published in the Proceedings of the National Academy of Sciences of the United States of America.

## **Pregnant Women Not Finding Ways to Prevent Malaria**

Malaria kills about 200,000 newborn babies and 10,000 new mothers every year. Most of these deaths are in Africa. Malaria can also cause mothers to lose their babies before they are born, or cause a baby to be born early.

There are low-cost ways to prevent malaria infections. But a new study finds that many pregnant women do not receive these interventions.

Jim Tedder reports.

For the past 20 years, the World Health Organization has advised pregnant women in areas with high rates of malaria to sleep

under bed nets treated with insecticide. The WHO also advises them to get what is known as intermittent preventive treatment, or IPT. This treatment involves taking a low-cost anti-malaria drug at certain times in their pregnancy in an effort to prevent the disease. The WHO recommends that pregnant women receive the medicine, usually around four times, during visits to a clinic.

Many pregnant women and new mothers go to medical clinics in sub-Saharan Africa. Yet researchers say only about 21 percent receive intermittent preventive treatment during their pregnancy. And less than 40 percent are given protective bed nets.

Jenny Hill from the Liverpool School of Tropical Medicine is program manager for a research partnership called the Malaria and Pregnancy Consortium. Ms. Hill says a review of 98 studies found a number of barriers to malaria prevention. These include unclear policy and guidance from government ministers and health care officials. Other problems include drug shortages, a lack of clean water, and confusion about how to administer IPT.

“They were unclear on when to give it in terms of gestational age of pregnancy and whether it could be given to women on an empty stomach, whether it should be given under observation in clinics, and so on and so forth, so quite a few of those barriers were around lack of clear policy and guidance.”

Ms. Hill says free intermittent preventive treatment is the policy in 37 countries across the region. But the researchers found that antenatal clinics, or ANCs, may charge fees that can keep some pregnant women from returning.

“When they arrive at the clinic for a first ANC visit they have to register, and that requires a registration fee. And there are also fees around getting lab tests and around some drugs.”

Ms. Hill says countries can reduce the number of deaths and early births due to malaria by following the WHO policy on intermittent preventive treatment. She says governments should also provide more money in their budgets for anti-malaria drugs so there are no shortages. Also, they should publicize the importance of malaria prevention among women at highest risk for disease.

The journal PLoS Medicine published the analysis of maternal and infant malaria prevention measures.

I'm Jim Tedder.

## **Ether is Used for the First Time as an Anesthetic**

Finally, it was on September 30<sup>th</sup>, 1846 that the chemical ether was used for the first time as a medical anesthetic. On that day Eben Frost went to the office of William Morton, a Massachusetts dentist. Mr. Frost had a painful toothache. He was also terrified at the possibility of even more pain if Dr. Morton decided to remove the tooth.

Mr. Frost asked the doctor to hypnotize him so he could avoid the pain. But that was not necessary. Dr. Morton had been experimenting with a chemical called "rectified sulfuric ether." He had given it to his dog, a cat and even himself, but never on a patient.

The dentist told Mr. Frost that he had something even better than a hypnotic treatment, if he cared to try it. Mr. Frost willingly agreed. Dr. Morton soaked a piece of cloth with ether and told his patient to breathe in deeply. Mr. Frost became unconscious almost immediately, and the tooth was pulled.

When Mr. Frost awoke a few minutes later, he said he had felt no pain and remembered nothing.

Dr. William Morton stopped doing dental work to publicize the use of ether, but he went bankrupt. When he died of a stroke at age 49, his wife and children received nothing.

I'm Christopher Cruise, and that's As It Is from The Voice of America.





## **Contact information for VOA Learning English:**

Postal address:

**VOA Learning English  
Room 3400  
330 Independence Ave SW  
Washington, DC 20237  
United States of America**

Email us at: [LearningEnglish@voanews.com](mailto:LearningEnglish@voanews.com)

Or go to our website -- [learningenglish.voanews.com](http://learningenglish.voanews.com) -- and click  
"Contact Us."

Follow us on Facebook, YouTube, LinkedIn, iTunes and Twitter at  
*VOA Learning English*

**<http://learningenglish.voanews.com/>**