

## Health

The peak of the malaria season arrived in the project area at mid-year, but the project had so far recorded zero malaria cases for 2011. The zero malaria rate was an improvement even over the low rates of recent years when the malaria rate has averaged roughly 0.3 cases per 200,000 work hours.

### The ABCD System

The rainy season leaves standing water all around the savanna of southern Chad – creating breeding grounds for millions of malaria-spreading mosquitoes. To fight this problem, the project vigorously applies an array of control measures that, among other things, include insecticide, antimalarial medication, mosquito repellent, long sleeves and pants. These measures are part of the internationally accepted malaria control protocol called ABCD.

**Awareness:** Be *Aware* of the risk, the incubation period and the main symptoms of malaria.

**Bite Control:** Avoid being *Bitten* by mosquitoes, especially between dusk and dawn when the malaria spreading mosquitoes are most active.

**Chemoprophylaxis:** Take *Chemoprophylaxis* antimalarial drugs to suppress infection where appropriate.

**Diagnosis:** Immediately seek *Diagnosis* and treatment if a fever develops after being in a malaria risk area and up to 3 months after departure.

### Fighting Malaria

To help in the battle against malaria, the project contracts with a team of scientists who help to customize the application of ABCD at the oilfield area facilities. The team, MosquitoZone, is a leading scientific authority on preventing the spread of diseases spread by insect bites, including malaria.



Jeffrey Corneil, Chief Entomologist, MosquitoZone, Komé Drilling Camp:  
*“MosquitoZone has been providing malaria awareness, education, mitigation and bite prevention services to the project since 2006. We focus on learning about mosquito behavior, and using what we learn against them. The rainy season is a very important time in the fight against malaria, because the larva of malaria-carrying mosquitoes often breed in standing water. Education and chemoprophylaxis are hugely important to controlling malaria, as is controlling the number of mosquitoes and their ability to bite humans. The project has been very successful with this – the result of a sustained group effort to control malaria.”*

## Fighting Malaria: Mosquito Traps & Microscopes



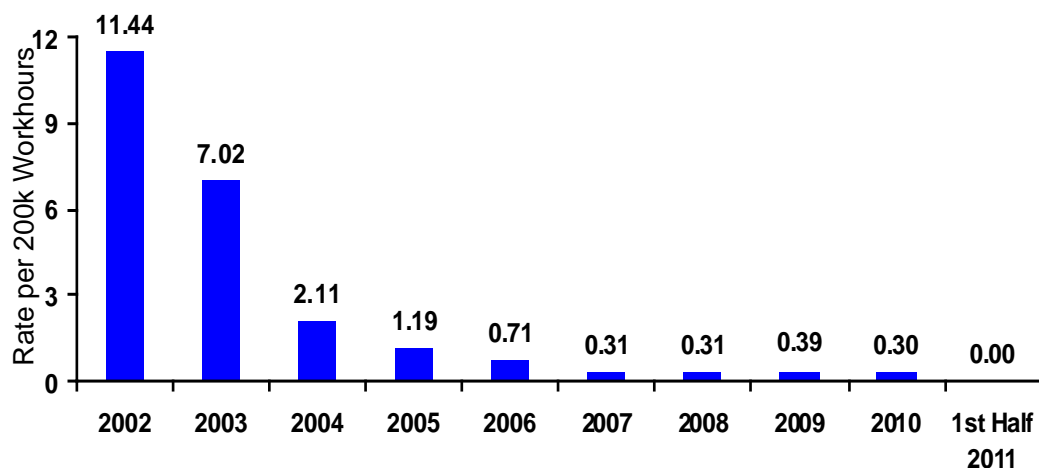
The MosquitoZone scientific team gathers data on the current mosquito situation by setting traps to collect the insects (top left). Back at the laboratory, the technicians sort, clean out the traps, count the mosquitoes (bottom left) and to plot the count of mosquitoes taken at each trap location. Then, the mosquitoes go under the microscope for precise identification (right) and classification for malaria danger. Armed with that daily data, the team can advise the project on where and how often to spray insecticide. The data also helps the project understand how all its other malaria control efforts are working and, thus, where they might need to be strengthened.

Passane Douzane, Supervisor, MosquitoZone, Komé Drilling Camp (right and at the microscope): *“I am responsible for overseeing our technicians, identifying and spraying for mosquito control. I’ve learned a lot about malaria since working on the project with MosquitoZone. I feel that my work helps people fight malaria, not only here on the project, but also when I go home, because I teach my family and village what I know. It is safe to say that my village knows malaria! I will continue to pass along what I know to my community and beyond, to help in the fight against malaria.”*



## Worker Health Statistics

### ◀ Malaria Infection Rate (Non-Immune Personnel)



The malaria infection rate for non-immune project workers has been dramatically reduced over the years of the project's intensive malaria prevention initiative. As the graph shows, the annual rate of cases per 200,000 work hours has been cut from 11.44 in 2002, the last full year of export pipeline construction. The project, so far in 2011, has achieved a zero malaria rate among non-immune personnel.

### ◀ Consultations at Project Clinics

	3Q2010	4Q2010	1Q2011	2Q2011
Chad	4,935	4,334	4,488	4,396
Cameroon	421	409	860	802
<b>Project Total</b>	<b>5,356</b>	<b>4,743</b>	<b>5,348</b>	<b>5,198</b>

Project health clinics provided over 20,645 free health care consultations to workers in the past year at project facility clinics, a valued job benefit in Chad and Cameroon where health care can be difficult to obtain, especially in rural areas. The bulk of this care involved illnesses or other health conditions unrelated to the workplace.

### ◀ Project Worker Health Data

	STDs <sup>1</sup>		SSS <sup>2</sup> Events (excluding Malaria & STDs)		Hospitalizations/ Observations		Medevacs	
	1Q2011	2Q2011	1Q2011	2Q2011	1Q2011	2Q2011	1Q2011	2Q2011
<b>Chad</b>	55	61	80	89	2	2	0	0
<b>Cameroon</b>	5	0	2	2	4	3	0	0
<b>Project Total</b>	<b>60</b>	<b>61</b>	<b>82</b>	<b>91</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>0</b>

1. STDs: Sexually Transmitted Diseases. 2. SSS: Sentinel Surveillance System, an epidemiological early warning system. Some examples of diseases tracked by the SSS include tuberculosis, dust exposure, meningitis, skin rashes and flu. The SSS focuses on additional diseases outside the two that have been priority targeted — malaria and sexually transmitted diseases. Trends in disease rates can help alert project health experts to a health problem before it reaches epidemic level.

