

MALARIA AWARENESS DAY: LEVERAGING PROGRESS FOR FUTURE ADVANCES

BRIEFING AND HEARING

BEFORE THE
SUBCOMMITTEE ON AFRICA AND GLOBAL HEALTH
OF THE
COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES
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MALARIA AWARENESS DAY: LEVERAGING PROGRESS FOR FUTURE ADVANCES

WEDNESDAY, APRIL 25, 2007

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AFRICA AND GLOBAL HEALTH,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:40 p.m., in room 2172, Rayburn House Office Building, Hon. Donald M. Payne (chairman of the subcommittee) presiding.

Mr. PAYNE. The hearing will come to order.

Last year, the President designated today, April 25, 2007, as U.S. Malaria Awareness Day, held in conjunction with the observance of Africa Malaria Day, to raise global awareness of malaria and to reaffirm our commitment to fighting this terrible disease. Many of us feel that this disease has gone unnoticed too long, a tremendous killer, but, I think, now we have seen that the world is going to step up to the plate.

In holding this hearing on “Malaria Awareness Day: Leveraging Progress for Future Advances,” the Subcommittee on Africa and Global Health and the Congress continue to show our commitment to this problem. We must continually assess what progress has been made in the global fight against malaria, particularly what the United States Government has done, and how to sustain that progress.

The ranking member and I just returned from the White House and the Rose Garden, where President and Mrs. Laura Bush officially launched the first Malaria Awareness Day program. They both gave extensive information regarding the problem and the President’s goal to effect change in the situation. The President’s Malaria Initiative is a program launched in 2005, which will increase United States contributions against malaria to \$1.2 billion over the next 5 years and is designed to cut malaria deaths in half in targeted countries in sub-Saharan Africa.

The President chose 15 countries—Angola, Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Rwanda, Senegal, Tanzania, Uganda, and Zambia—to start the program. This program is a good ramp-up to fight malaria. Much more, of course, remains to be done.

Malaria, the most deadly parasitic disease in the world, is a global emergency. Each year, more than 1 million people die from this dreaded disease. In fact, health experts believe that between 85 and 90 percent of malaria deaths occur in Africa, mostly among children. Further, 300–500 million people are newly infected annu-

ally. Pregnant women and children are, in fact, the most vulnerable when it comes to malaria, as are people living with HIV/AIDS, and we also see a connection with tuberculosis.

Malaria kills an African child every 30 seconds, causes between 20 to 25 percent of all deaths among African children under the age of five, and constitutes 10 percent of the continent's overall disease burden.

Malaria has also been cited as a significant indirect cause of death in sub-Saharan Africa. Health experts contend that malaria contributes to anemia in pregnancy, low birth weight, and premature delivery, which, combined, kill from 75,000 to 200,000 infants each and every year. These statistics are absolutely staggering. They remind us that we simply are not doing enough to fight malaria.

We must remember that malaria is a disease of poverty. Infection leads to a reduction in community and household productivity and income generation. In addition, it results in significant levels of household expenditures, up to 25 percent of available income for treatment and prevention, being a big drain on already impoverished people.

According to the Africa Medical and Research Foundation, it is estimated that malaria costs Africa \$12 billion annually in lost gross domestic product.

Accordingly, we must get serious about ending poverty in Africa and other developing regions of the world. As you may recall, in 2000, the millennium development goal was to have abject poverty reduced, by 2015, by 50 percent. We are not reaching our goal. It was reaffirmed at the United Nations in 2006, but we still have much work to do.

Poverty and disease go hand in hand, and we must do more to increase the capacity of African nations' health systems, which are burdened not only by the lack of resources but also by the presence of United States programs, which, though well intended, often draw particular human resources away from the national health services to other available positions.

So we must also step up efforts to train health care professionals in Africa. We must also remember that malaria's carrier is merely a tiny mosquito.

So, in addition to efforts to educate people, we must also do more to provide insecticide-treated bed nets, anti-malaria drugs, indoor residue spraying, and other measures to stop the spread of malaria.

So there is much to be done, yet in the face of this pandemic, progress in fighting malaria offers great promise. Thanks to programs, through the President's Malaria Initiative, the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the World Bank, the private sector, and other donors, we are achieving significant progress. Just today, a new joint effort was announced between Malaria No More, a partnership organization made up of NGOs, private sector business groups, and private foundations, such as Millennium Promise, and the President's Malaria Initiative, the PMI program, to fight malaria in Uganda and Madagascar.

Malaria No More is co-chaired by Ray Chambers, a philanthropist and humanitarian who happens to be from Newark, New

Jersey, and a personal friend of mine who has done so much throughout the years in causes that are important.

These joint efforts and others like them should be commended. We must leverage all of the available resources we can to end the scourge of malaria. The hearing will focus on the successes of these programs to date, including the PMI, the Global Fund, and work done by the private sector. The hearing will also evaluate how to leverage this program for future success and how to improve partnerships to ensure that interventions are making a difference in the field.

Emphasizing programmatic success and the need for a continued partnership coincides with the theme for Malaria Awareness Day: "Free Africa from Malaria Now: Leadership and Partnership for Results." Leadership is required at all levels to meet the challenges of scaling up malaria control.

Partnership is key in overcoming implementation bottlenecks and ensuring that commodities begin to flow to where they are needed the most. Only by working together can we hope to control malaria. Partners must coordinate and harmonize their activities under the leadership of countries with a clear focus on achieving good and clear results.

Today, Congresswoman Watson, the subcommittee vice chair, and I will be introducing a resolution supporting the goals and ideals of Malaria Awareness Day and calling for Americans to do their part to raise awareness and support efforts to help save the lives of those affected by malaria. I welcome the support of the entire committee and encourage all members to co-sponsor this resolution.

We will hear from an excellent lineup of witnesses. On our first panel, we have Admiral Tim Ziemer, U.S. Malaria Coordinator of the President's Malaria Initiative, who will provide an update of PMI and discuss future issues that need to be addressed.

Next, we will hear from Dr. Stefano Lazzari, senior health adviser at the Global Fund to Fight AIDS, TB, and Malaria, who will give a Global Fund update and discuss the great progress being made with national governments taking ownership of anti-malaria efforts.

We have with us Nils Daulaire, president and CEO of the Global Health Council, who will discuss the link between malaria and larger development challenges, in addition to the linkage between the U.S. and global advocacy.

And we will hear from Dr. Adel Chaouch, who is the director of corporate social responsibility at Marathon Oil Company, on the role of the private sector in the fight, as well as the importance of partnerships.

From Uganda, we will have Ms. Enid Wamani, who is the Secretariat coordinator for the African Medical and Research Foundation in Kampala, Uganda, who will share her field perspectives and successes of programs on the ground, as well as the importance of capacity building.

And last, but not least, Ms. Susan Lassen, NetsforLife Coordinator with the Episcopal Relief and Development group, will discuss the role of the faith-based community in fighting malaria.

At this time, we will hear from my ranking member, Congressman Smith. Thank you.

[The prepared statement of Mr. Payne follows:]

PREPARED STATEMENT OF THE HONORABLE DONALD M. PAYNE, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF NEW JERSEY, AND CHAIRMAN, SUBCOMMITTEE
ON AFRICA AND GLOBAL HEALTH

Last year, the President designated today, April 25th, 2007 as U.S. Malaria Awareness Day, is held in conjunction with the observance of Africa Malaria Day to raise global awareness of malaria and to reaffirm our commitment to fighting this terrible disease. In holding this hearing on "Malaria Awareness Day: Leveraging Progress for Future Advances" the Subcommittee on Africa and Global Health and the Congress continue to show our commitment. We must continually assess what progress has been made in the global fight against malaria, particularly what the US government has done, and how to sustain that progress.

I just returned from the White House Rose Garden where President Bush officially launched the first Malaria Awareness Day. The President's Malaria Initiative is a program launched in 2005 which will increase the US contribution against malaria to \$1.2 billion over five years and is designed to cut malaria deaths in half in target countries in sub-Saharan Africa.

The President chose 15 African countries: Angola, Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Rwanda, Senegal, Tanzania, Uganda and Zambia. This program is a good ramp-up to fight malaria. Much more remains to be done of course.

Malaria—the most important parasitic disease in the world—is a global emergency. Each year, more than 1 million people die from the disease. In fact, health experts believe that between 85% and 90% of malaria deaths occur in Africa, mostly among children. Further, 300–500 million people are newly infected annually. Pregnant women and children are, in fact, the most vulnerable when it comes to malaria. Malaria kills an African child every 30 seconds, causes between 20% and 25% of all deaths among African children under five-years, and constitutes 10% of the continent's overall disease burden.

Malaria has also been cited as a significant indirect cause of death. In sub-Saharan Africa, health experts contend that malaria contributes to anemia in pregnancy, low birth weight, and premature delivery, which, combined, kill from 75,000 to 200,000 infants each year. These statistics are absolutely staggering. They remind us that we simply are not doing enough to fight malaria.

We must remember that Malaria is a disease of poverty. Infection leads to a reduction in community and household productivity and income generation. In addition, it results in significant levels of household expenditure (up to 25% of available income) for treatment and prevention. According to the African Medical and Research Foundation, it is estimated that malaria costs Africa \$12 billion annually in lost Gross Domestic Product.

Accordingly, we must get serious about ending poverty in Africa and other developing regions of the world. Poverty and disease go hand-in-hand. And we must do more to increase capacity of African nations' health systems which are burdened not only by a lack of resources, but also by the presence of US programs which, though well-intentioned, often draw particularly human resources away from national health services. So we must also step up our efforts to train health care professionals in Africa.

We must also remember that malaria's carrier is merely a tiny mosquito. So in addition to efforts to educate people, we must also do more to provide insecticide-treated bed nets, anti-malarial drugs, indoor residual spraying, and other measure to stop the spread of malaria.

So there is much to be done. Yet in the face of this pandemic, progress in fighting malaria offers great promise. Thanks to programs through the President's Malaria Initiative, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank, the private sector and other donors, we are achieving significant progress.

Just today, a new joint effort was announced between Malaria No More—a partnership organization made up of NGO's, private sector business groups, and private foundations such as Millennium Promise—and the President's Malaria Initiative (PMI) to fight malaria in Uganda and Madagascar. Malaria No More is co-chaired by Ray Chambers, a philanthropist and humanitarian who happens to be a good friend of mine from my district in Newark, New Jersey. These joint efforts and others like it should be commended. We must leverage all the available resources we can to end the scourge of malaria.

The hearing will focus on the successes of these programs to date, including PMI, the Global Fund and the work of the private sector.

The hearing will also evaluate how to leverage this progress for future success—how to improve partnerships to ensure that interventions are making a difference in the field—

Emphasizing programmatic successes and the need for continued partnerships coincides with the theme for Africa Malaria Day, “Free Africa from Malaria Now: Leadership and Partnership for Results.” *Leadership* is required at all levels to meet the challenges of scaling up malaria control. *Partnership* is key in overcoming implementation bottlenecks and ensuring that commodities begin to flow to where they are needed most. Only by working together can we hope to control malaria. Partners must coordinate and harmonize their activities under the leadership of countries with a clear focus on achieving results.

Today Congresswoman Watson, the subcommittee Vice-Chair, and I will be introducing a resolution supporting the goals and ideals of Malaria Awareness Day and calling for Americans to do their part to raise awareness and support efforts to help save the lives of those affected by malaria. I welcome the support of the entire committee and encourage all Members to cosponsor.

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We will also hear from Dr. Adel Chaouch who is the Director of Corporate Social Responsibility at Marathon Oil Company on the role of the Private Sector in the fight as well as the importance of partnerships.

From Uganda we have Ms. Enid Wamani who is the Secretariat Coordinator for the African Medial and Research Foundation in Kampala who will share her field perspective and success of programs on the ground as well as the importance of capacity building.

And last but not least, Ms. Susan Lassen, Nets for Life Coordinator with Episcopal Relief and Development will discuss the role of the faith-based community in fighting malaria.

Mr. SMITH OF NEW JERSEY. Thank you very much, Mr. Chairman, and thank you for calling this very important hearing.

As you know, and as you said yourself, more than 1 million people die each and every year from malaria, and it is estimated that 300–500 million people suffer from the infection.

As you know, Mr. Chairman, malaria inflicts a particularly severe toll on the people of Africa. Eighty-five percent of deaths caused by malaria occur in sub-Saharan Africa. It is a major killer of African children. As the President said just a few hours ago, every 30 seconds an African mother loses her child to malaria. Africa loses \$12 billion of its gross domestic product each year due to the disease, while the disease, in turn, consumes about 40 percent of Africa’s public health expenditures.

The impact of malaria is exasperated by the HIV/AIDS pandemic. These numbers and statistics are staggering, but they have a greater impact when one has been to Africa and met the individuals who must live with this dreaded disease.

Anyone who spends any meaningful amount of time in Africa and mingles with the African people will soon notice the prevalence of this disease. When you ask someone whether or not he or she has had malaria, they likely will not respond with a yes or no, but they will tell you how many times and when the last episode occurred.

There is no reason why this disease, in the 21st century, should continue.

Today, along with you, Mr. Chairman, I attended a luncheon with Admiral Ziemer at the White House that was held to commemorate Malaria Awareness Day, an idea to focus the world's attention on this preventable and treatable disease.

President Bush reminded those of us who attended that, just one century ago, malaria was still a problem here in Washington, DC, with its hot and humid summers. He noted that Members of Congress would leave town for months at a time to avoid catching it. He then added that there were negative consequences as well to the disease.

But beyond the humor, he and Mrs. Bush eloquently presented the serious challenge that malaria presents to other parts of the world today and reiterated a conviction of Americans that every human life everywhere is precious and must be protected.

In giving due credit to the American people, and especially to the man who heads up this effort, Admiral Ziemer, and I thought the President was particularly eloquent in pointing out that you are the man for the job, you get the job done, and I think he praised you very eloquently.

Bush, very modestly, omitted the credit to which he himself is entitled for establishing the President's Malaria Initiative in June 2005. This initiative, together with the President's Emergency Plan for AIDS Relief, another bold, innovative and life-saving initiative, will certainly have a noticeable impact on the health and welfare of Africans.

It started with \$30 million in Fiscal Year 2006, plus an additional \$4.25 million reprogrammed in Fiscal Year 2005, in the focus countries of Angola, Tanzania, and Uganda. It will expand over 5 years, subject to congressional approval, which I am sure will be forthcoming, to an annual budget of \$500 million and reach 15 African countries.

The PMI's strategy is to provide four proven and highly effective malaria prevention-and-treatment measures, insecticide-treated mosquito nets, indoor residual spraying with insecticides, intermittent preventive treatment for pregnant women, and ACT.

Last year, when I was in Uganda, I visited the homes of several people infected with HIV/AIDS. One home in the remote region of Busheni struck me, in particular. The three-room dwelling of white-washed walls and dirt floors was practically empty, which made the insecticide-treated mosquito net over the floor mats all the more striking. These nets may seem like insignificant items when listed on paper, but they are noticeably visible in the modest shelters of those who rely on them for protection from an opportunistic infection.

So we are making a good start with the PMI and with the other multilateral organizations working in partnership with the Initiative. However, I would assert that that is not enough. These efforts are good for reducing the incidents of malaria, but our goal must be eradication. I look forward to this hearing and the testimony of our very distinguished witnesses as we talk about mitigating its impact while we work toward eradication. I yield back the balance.

Mr. PAYNE. Thank you very much, Mr. Ranking Member.

At this time, we will hear from Admiral Ziemer. He is a former admiral, but, prior to that, served as executive director of World Relief, which provides disaster response and community development and child and maternal health care for over 30 countries. He has been involved in humanitarian work, and we are very pleased. As it has been mentioned, the President, when he spoke today, said that Admiral Ziemer is known to get the job done, so we are pleased to have you with us. Thank you.

**STATEMENT OF ADMIRAL TIMOTHY ZIEMER, USN (RETIRED),
PRESIDENT'S MALARIA INITIATIVE COORDINATOR, U.S.
AGENCY FOR INTERNATIONAL DEVELOPMENT**

Admiral ZIEMER. Chairman Payne, Ranking Member Smith, and other colleagues, thank you for convening this hearing today as we commemorate Africa Malaria Day and now the first Malaria Awareness Day in the United States.

I want to thank you for your opening remarks and your significant support and awareness of malaria. I want to also thank you for introducing the resolution in full support of Malaria Awareness Day. That is very much appreciated.

I have prepared some formal remarks, and, with your permission, would like to have those submitted as a matter of the record.

Mr. PAYNE. Without objection.

Admiral ZIEMER. You have clearly described in detail the shocking and unacceptable statistics of malaria throughout the world and the adverse impact that it is having in Africa. So, for the sake of brevity and moving forward, I am not going to duplicate those.

You have also summarized the malaria initiative that President Bush announced in 2005. The goal of the President's Malaria Initiative, or the PMI, as it is known, is very ambitious. It is to cut by 50 percent the malaria-related deaths in 15 African countries. This will be achieved because we have applied specific targets to our goals, and we have identified the two vulnerable groups that you have already identified—children under five and pregnant women—and we are using proven prevention and treatment measures.

This includes indoor residual spraying, intermittent preventive treatment to address malaria in pregnancy, distribution of insecticide-treated nets to prevent mosquito bites, and the treatment of malaria with artemisinin-based combination therapies.

The PMI is an interagency initiative led by USAID but with full collaboration from the Department of Health and Human Services, through the Centers for Disease Control and Prevention. It makes a pretty strong team.

In my statement, I am going to focus on three things briefly: First, our progress to date in the PMI; secondly, the importance that PMI places on partnerships; and, third, how we are working together to strengthen health systems.

The PMI has moved ahead rapidly and built on almost two decades of the United States Government's work and experience here and in the field. On my first chart, you can see that USAID and CDC have collaborated on much of the original research related to insecticide-treated mosquito nets, intermittent preventive treat-

ment of malaria in pregnancy, and artemisinin-based combination therapies.

In addition, USAID and CDC helped many African countries modify their malaria-control policies and begin implementing these new policies and tools.

African ministers of health met in Senegal last year. They declared that Africa was in crisis. We moved rapidly and responded to this call to action. Within 6 months of the President's announcement, we launched high-impact activities in Angola, Tanzania, and Uganda. With just \$30 million in our first year budget, more than 6 million people were reached.

Here are some of the results. On Chart No. 2, you will see that the indoor residual spraying programs that were conducted in these three countries protected 2 million people. I would also like to draw your attention to the very high acceptance rates, over 90 percent in each country.

In Fiscal Year 2007, we expect to reach 10 million people with PMI-supported spraying programs. Additionally, thus far, more than 1 million long-lasting, insecticide-treated mosquito nets were bought and distributed; over 500,000 nets were retreated with insecticide; and more than 1.2 million treatments of artemisinin-based combination therapies were purchased and distributed.

And, finally, in Year 1, as you can see from the next chart, PMI has supported the training of over 10,000 health workers.

In January, we began our second year and expanded to four additional countries. At the same time, we have been preparing jump-start activities for many of the final eight countries that will join the Initiative, beginning in Fiscal Year 2008.

So far in 2007, with early funding through jump starts, we have reached 5 million people with prevention interventions in all PMI countries, and, by the end of the year, we expect to reach 30 million beneficiaries who are at risk of malaria.

In just our second year, we are already beginning to see significant progress. Chart No. 4 shows the results of the 2006 Measles/Malaria ITN campaign in seven Angolan provinces. The percentage of children who slept under an ITN has increased from less than 5 percent to over 69 percent.

In Zambia, the number of households sprayed increased from approximately 250,000 to more than 600,000, and we have protected roughly 3½ million people.

In Uganda, household ITN ownership this year is expected to rise from 14 percent to an estimated 50 percent as a result of ITN contributions by PMI and other partners.

Finally, in Zanzibar, where we partnered with the National Malaria Control Program and the Global Fund to distribute 230,000 ITNs, a health impact is already being seen. Between 2005 and 2006, there was an 87-percent drop in the number of laboratory-confirmed malaria cases on Pemba Island.

Given the enormous burden of malaria, we can only achieve our goals through partnerships, which is at the heart of our strategy.

Chart No. 5 depicts that the PMI is working with a variety of partners. We are working directly with our host African ministers of health, and our annual plans directly support their national malaria control plans. The PMI coordinates with the Global Fund, the

World Bank, and other donors and often co-funds the activities that they are supporting.

For example, in Uganda the PMI strengthened the pharmaceutical management system to help distribute ACT treatments purchased by the Global Fund.

In Angola, we supported training of personnel in Global Fund/WHO-supported spraying programs. Last year, large-scale ITN distribution in Angola was co-funded by PMI, American Red Cross, the Global Fund, ExxonMobil, and others. In addition, we support the Roll Back Malaria Partnership.

We are also working closely with the private sector. In Angola, we collaborated with ExxonMobil Foundation to strengthen pharmaceutical management and promote health education.

In Uganda, we are partnering with the nonprofit organization, Malaria No More, to distribute 580,000 free, long-lasting nets.

As part of a jump-start activity in Zambia, the PMI is partnering with PEPFAR and the Global Business Coalition to distribute over 500,000 nets.

The participation of NGOs, faith-based, and community organizations is crucial to the success of malaria control efforts. Currently, we are working with 29 NGOs and local organizations. We are launching the Malaria Communities Program, which is designed to provide more grants to these grassroots organizations. These grants will expand prevention and control activities to the communities where they are needed the most.

Chart No. 6 is meant to depict that we are programming PMI resources in ways that will directly and indirectly strengthen overall maternal and child programs and the health systems. For example, our support of pharmaceutical management systems helps to improve the management of malaria commodities and other essential medicines.

We are also supporting supervision in monitoring and evaluation across all levels of the health system. We are strengthening malaria diagnosis and, in doing so, will help enhance the overall quality of laboratory services.

We are helping to expand services, outreach, and volunteer programs at the community level. Sustainability of malaria programs is a high priority for us, and toward that end, we are working to promote increased funding by the host governments for their own national malaria control programs.

We are working to increase diversification and long-term funding by donors and other partners. We are working toward improving quality of malaria services.

We are attempting to achieve high levels of sustained national coverage rates for malaria prevention and treatment interventions and active involvement of the community, NGO, and private sector organizations—all ingredients that are needed in order to sustain programs.

As a result of progress in these critical areas, national malaria control programs in Africa are becoming more effective, sustainable, and accountable. As with child vaccines, there should be an international mandate that no high-burden malaria country will run out of essential malaria drugs or nets.

The PMI places a high priority on accountability and transparency. Through regular postings to its Web site, PMI is providing information to the public on funding allocations, procurements, program activities, milestones, and results. This includes copies of contracts and grants, annual reports from PMI implementers, and program audits. We believe that we are at the forefront of development programs in this area.

In conclusion, in just over a year, PMI, together with our partners, is having an impact. I am beginning to see a change in attitudes in malaria across Africa. No more is malaria accepted as a fact of life or an intractable problem. With concerted action, I am convinced it can be beaten back.

Sir, again, thank you for your leadership and your support, and I look forward to questions that you might have.

[The prepared statement of Mr. Ziemer follows:]

PREPARED STATEMENT OF ADMIRAL TIMOTHY ZIEMER, USN (RETIRED), PRESIDENT'S MALARIA INITIATIVE COORDINATOR, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Introduction and Summary:

Each year, an estimated 300 to 500 million people become ill with malaria worldwide and more than one million die. Of these deaths, 85 percent occur in sub-Saharan Africa. Recognizing the critical need for greater international efforts to reduce the burden of malaria across Africa, President George W. Bush, in June 2005, announced the President's Malaria Initiative (PMI). The PMI is a U.S. Government initiative led by the U.S. Agency for International Development (USAID) with the Department of Health and Human Services (HHS)/Centers for Disease Control and Prevention (CDC) as its major partner. The Initiative represents an historic five-year expansion of U.S. Government resources to fight malaria in the region most affected by the disease. The President committed an additional \$1.2 billion in malaria funding to this Initiative and set the ambitious goal of reducing malaria mortality by 50 percent in the 15 PMI focus countries. Working to mitigate diseases, such as malaria, that threaten the human and economic capacity of countries to progress on their own is a key aspect of the goal of transformational diplomacy.

Since the announcement of the PMI in June 2005, the Initiative has advanced rapidly to achieve results in all three Year 1 countries: Angola, Uganda, and Tanzania. The PMI supported highly successful indoor residual spraying (IRS) campaigns in all first-year countries. These campaigns protected more than two million people and were the first wide-scale spraying programs in these countries in decades. In all Year 1 countries, PMI significantly expanded insecticide-treated net (ITN) programs, procuring and supporting the distribution of approximately one million long-lasting ITNs. Artemisinin-based combination therapies (ACTs) were procured and delivered to all three countries, making this highly effective treatment available to more than 1.2 million people. PMI also supported training for health workers on proper ACT use. To improve the accuracy of malaria diagnosis and ensure the rational use of ACTs, the PMI is procuring microscopes and more than 1 million rapid diagnostic tests. To prevent malaria in pregnant women and reduce the incidence of life-threatening low birth weight among newborns, PMI supported training for 1,900 health providers on intermittent preventive treatment during pregnancy (IPTp). In total, over 6 million persons were reached in Angola, Tanzania, and Uganda during the first year of operations.

In Year 2, beginning in January 2007, the PMI expects to reach an additional 30 million persons with lifesaving interventions in seven focus countries (the initial three countries plus the new focus countries of Malawi, Mozambique, Rwanda, and Senegal). Already in 2007, the PMI is supporting indoor residual spraying programs in Tanzania, Angola, Uganda, Zambia and Madagascar (the latter two as "jump start" activities for new 2008 focus countries), which are benefiting over 5 million persons. Other early 2007 activities include the procurement and distribution of long-lasting ITNs in Malawi, the retreatment of regular nets in Mozambique and Senegal, and the support of malaria in pregnancy activities in Rwanda.

The PMI, in partnership with African ministries of health, The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), The World Bank, the Gates Foundation, and other international efforts, are helping to change attitudes toward ma-

alaria control. No more a “fact of life” or an “intractable problem” in sub-Saharan Africa, malaria can be beaten back with a concerted effort from all partners.

The Burden of Malaria:

Each year, an estimated 300 to 500 million people become ill with malaria worldwide and more than one million die. Of these deaths, 85 percent occur in sub-Saharan Africa. For children under age five in Africa, malaria is a leading cause of death, accounting for approximately 18 percent of all deaths in children under five.

Malaria and poverty are closely linked. Economists estimate that malaria accounts for approximately 40 percent of public health expenditures in Africa and is estimated to cause an annual loss of \$12 billion from the continent’s gross domestic product. Although malaria eradication efforts during the 1950s and 1960s successfully eliminated or controlled the disease in many other areas of the world, malaria remains a major killer in Africa due to a combination of biologic, economic, and political factors. The sub-Saharan climate provides ideal conditions for the malaria parasite and mosquito vector, while poverty and political instability have repeatedly created obstacles to successful malaria control in many African countries.

Malaria Transmission and Infection

Malaria is a blood-borne infection transmitted to human beings by the bite of female *Anopheles* mosquitoes that carry the malaria parasite. The initial symptoms of a malaria infection include fever, chills, and flu-like illness. The malaria parasite infects and destroys red blood cells, and if not promptly treated, can rapidly progress to severe anemia, lung and kidney failure, coma, and death.

Malaria is typically found in warmer regions of the world, such as sub-Saharan Africa, because both the mosquito and the malaria parasite it carries thrive in tropical and subtropical climates. Four types of malaria parasites infect humans. In sub-Saharan Africa, the majority of infections are caused by *Plasmodium falciparum*. This species of parasite is responsible for the most severe form of the disease and for the majority of deaths worldwide.

The President’s Malaria Initiative

In spite of these grim statistics, malaria is a preventable and treatable disease. In June 2005, President George W. Bush, recognizing the critical need for greater international efforts to reduce the burden of malaria across Africa, announced the President’s Malaria Initiative. The PMI represents an historic five-year expansion of U.S. Government resources to fight malaria in the region most affected by the disease. The President committed an additional \$1.2 billion in malaria funding to this Initiative and set an ambitious goal for PMI focus countries to reduce the estimated deaths caused by malaria by 50 percent.

Prevention and Treatment Interventions

Malaria is both preventable and treatable. Although a malaria vaccine is not yet available, several proven and cost-effective prevention and treatment measures exist. These include:

- Indoor residual spraying of insecticides in homes;
- Insecticide-treated mosquito nets;
- Prompt use of artemisinin-based combination therapies for those who have malaria; and
- Intermittent preventive treatment of pregnant women with an antimalarial drug.

Specific PMI Targets

The PMI has a single set of country-level targets for the four major control measures. These targets are the same for each focus country and they apply to the populations most vulnerable to malaria—children under age five and pregnant women. These include:

- More than 90% of households with a pregnant woman and/or children under five will own at least one ITN;
- 85% of children under five will have slept under an ITN the previous night;
- 85% of pregnant women will have slept under an ITN the previous night;
- 85% of houses in geographic areas targeted for IRS will have been sprayed;
- 85% of pregnant women and children under five will have slept under an ITN the previous night or in a house that has been protected by IRS;
- 85% of women who have completed a pregnancy in the last two years will have received two or more doses of IPTp during that pregnancy; and

- 85% of children under five with suspected malaria will have received treatment with an ACT within 24 hours of onset of their symptoms.

PMI and Previous USG Malaria Control Programs

The PMI builds upon two decades of USG activities and experience in malaria control. Research supported by USAID and HHS/CDC provided the scientific basis for intermittent preventive treatment in pregnant women, and helped establish the safety and efficacy of ACTs in treating malaria and the value of ITNs in reducing malaria-related mortality and illness in African children. Together with the World Health Organization (WHO), USAID and HHS/CDC played key roles in working with ministries of health in Africa to promote policy change and adoption of ACTs and IPTp. Finally, USAID supported the cultivation in East Africa of the plant from which artemisinin drugs are extracted to increase global supplies of ACTs, provided technical assistance in good manufacturing practice and quality control to Chinese and Vietnamese manufacturers of ACTs, and assisted African textile manufacturers to enter the ITN market.

Scaling up to achieve PMI Targets

The PMI began with a budget of \$30 million in Fiscal Year (FY) 2006, which was supplemented by \$4.25 million in reprogrammed FY 2005 funds. With Congressional approval, the PMI budget will grow to \$500 million in FY 2010.

	Fiscal Year	Budget	Focus Countries
Year 1	2006	\$30 million	Angola, Tanzania, Uganda
Year 2	2007	\$135 million	Malawi, Mozambique, Rwanda, Senegal (in addition to Year 1 countries)
Year 3 (request)	2008	\$300 million	Benin, Ethiopia (Oromiya Region), Ghana, Kenya, Liberia, Madagascar, Mali, and Zambia (in addition to Year 1 and Year 2 countries)
Year 4 (request)	2009	\$300 million	All 15 PMI countries
Year 5 (request)	2010	\$500 million	All 15 PMI countries
Total: \$1.265 billion			

Country Selection

Focus countries were selected and approved by the Interagency Steering Group using the following criteria:

- High malaria disease burden;
- National malaria control policies consistent with the internationally accepted standards of the WHO;
- Capacity to implement such policies;
- Willingness to partner with the United States to fight malaria; and
- Involvement of other international donors and partners in national malaria control efforts such as the GFATM and the World Bank.

The PMI Approach

The PMI is organized around the following operational principles:

- Commitment to strengthen national malaria control programs (NMCPs) and to build capacity for eventual country ownership of malaria control efforts;
- Close coordination with international and in-country partners, and
- Coherence with the overall strategy and plan of the host country's NMCP.

Malaria Control Interventions

Insecticide Treated Mosquito Nets: In Africa, malaria-carrying mosquitoes typically bite late at night or in the early morning hours. A net hung over the bed acts as a physical barrier to prevent mosquitoes from biting. When that net is treated

with insecticide, it provides much greater protection by repelling and killing any mosquitoes that land on it. ITNs come in a variety of shapes, colors, and sizes to suit local tastes and needs. The insecticides used to treat the nets have been approved for safety and efficacy by the WHO.

ITNs have been shown to reduce all-cause mortality in children under five by about 20 percent and malarial illnesses among children under five and pregnant women by up to 50 percent. When a high percentage of residents in a village use an ITN, even those not sleeping under a net benefit from the community protective effect. First generation ITNs required re-treatment with insecticide every 6–12 months to remain effective. However newer ITNs retain effective amounts of insecticides for 3 years (the life of the net) and do not require re-treatment.

Indoor Residual Spraying: Indoor residual spraying is a proven and highly effective malaria control measure. During the 1950s and 1960s, IRS, together with improved standards of living, helped eliminate or control malaria in many areas outside Africa. IRS involves the coordinated, timely spraying of the interior walls of a home with small amounts of insecticides, which kill mosquitoes when they enter the home and rest on walls. The protection provided by spraying lasts from about four to ten months, depending on the insecticide used and the wall surface. The decision to use IRS as a control strategy takes into account such factors as the logistics of spray teams being able to regularly access communities, household construction and housing density, and the epidemiology of local malaria transmission.

WHO has approved 12 insecticides it considers effective and safe for use in IRS, including DDT (see below). The choice of insecticide depends on whether it is registered for use in the country, the type of wall surfaces to be sprayed, the duration of the transmission season, and resistance levels of the local species of mosquitoes that transmit malaria. The choice of insecticide will also depend on whether or not the national malaria control program plans to apply different insecticides in a rotation scheme to slow the emergence of resistance. For IRS to be effective, at least 80 percent of the homes in the targeted geographical area must be sprayed.

The PMI supports IRS with DDT as an effective malaria prevention strategy in tropical Africa in those situations where it is judged to be the best insecticide from the standpoint of local transmission of the disease and where use is permitted by host-country policy. The use of DDT for IRS to prevent malaria is allowable under the Stockholm Convention—also known as the Persistent Organic Pollutants or POPs Treaty—when used in accordance with WHO guidelines. Some countries do not carry out IRS or have not registered DDT for use in their malaria control programs. The reasons may include insecticide resistance, the epidemiological situation of the country, the organizational capacity of the program, or in some cases, concerns related to their agricultural export market.

DDT is more effective and less expensive than many other insecticides in some situations; as a result, it is a very competitive choice for IRS programs. DDT specifically has an advantage over other insecticides when long persistence is needed on porous surfaces, such as unpainted mud walls, which are found in many African communities, particularly in rural or semi-urban areas. In Zambia, as in the other countries receiving IRS support, USAID provided training and materials for improving national capacity for the safe and judicious use of pesticides in accordance with WHO standards and as stipulated by international agreements, such as the Stockholm Convention.

Intermittent Preventative Treatment in Pregnancy: Malaria infection during pregnancy poses serious health risks for both the mother and her unborn child. Malaria may be transmitted from mother to fetus before or during labor and delivery. If a pregnant woman contracts malaria, she is at much greater risk of anemia, premature delivery, and death. In addition, because malaria parasites sequester in the placenta and impair the delivery of nutrients to the growing fetus, a mother's newborn child is at higher risk of low birth weight—a leading cause of poor infant survival in Africa. The prevention and treatment of malaria during pregnancy depends on a combination of malaria control measures, including the use of ITNs, laboratory diagnosis for prompt and effective treatment, and intermittent preventive treatment.

Intermittent preventive treatment of pregnant women is a highly effective means of reducing the risk of malaria in pregnant woman and the adverse consequences to her unborn child. It involves the administration of at least two treatment doses of an antimalarial drug, sulfadoxine-pyrimethamine, to the woman during the second and third trimesters of her pregnancy with at least a one-month interval between doses. IPTp reduces the frequency of maternal anemia, malaria infection of the placenta, and the delivery of low birth weight babies. Because in most African countries more than 70 percent of pregnant women attend antenatal clinics, these clinics serve as an attractive platform for delivering preventive treatments. The

wide-scale use of IPTp could prevent up to 75,000–200,000 infant deaths each year in Africa.

Diagnosis and Treatment: Artemisinin is an antimalarial drug derived from a plant, *Artemisia annua*, or sweet wormwood, which has been used as a fever remedy in China for more than 1,000 years. The artemisinin family of drugs are the most rapidly-acting and effective antimalarial drugs currently available. Combined with a second effective antimalarial, they have become the standard of care for malaria in most parts of the world where resistance to traditional single drug therapies, such as chloroquine, has become common. This is termed artemisinin-based combination therapy, or ACT.

Since ACTs cost 10–20 times more than chloroquine and have a shelf life of just 18–24 months, good pharmaceutical management is critical to their effective use. Unfortunately, many ministries of health in Africa have weak drug management and logistics systems. In addition, ACTs are relatively new to most African countries, so large-scale in-service training of health workers and education of patients will be needed.

The high cost of ACTs heightens the need for accurate diagnosis of malaria, which, because of its nonspecific symptoms, may be quite difficult to distinguish from other causes of fever. Microscopic examination of blood smears from patients with suspected malaria is considered the gold standard for diagnosis, but it requires considerable supervisory and logistic support to sustain high quality performance. In recent years, the development and refinement of rapid diagnostic tests for malaria has offered a potentially simpler solution to malaria diagnosis in settings where microscopy is not feasible or sustainable. RDTs are simple to use; however, they do have limitations, including problems with quality control during production, sensitivity to high temperature and humidity.

PMI Results in Year 1

The PMI is off to a very rapid start. Within six weeks of the President's announcement, PMI had fielded needs assessment teams to all three first-year countries. Within six months, high-impact activities were underway in Angola and Tanzania, and a month later in Uganda.

During the first year of the Initiative, PMI supported highly-successful indoor residual spraying campaigns in all first-year countries. These campaigns protected more than two million people and were the first wide-scale spraying programs in these countries in decades. In all three countries, PMI has significantly expanded ITN programs and is working to accelerate the transition from regular ITNs to long-lasting nets, which do not require periodic re-treatment. In both Angola and Uganda, private sector providers of ITNs have been supported and strengthened, contributing to sales of more than 600,000 ITNs to those who can afford to pay. In Uganda, PMI supported a campaign that resulted in free re-treatment with insecticide of more than 500,000 existing nets. In total, PMI has procured and supported the distribution of approximately one million ITNs in its first year. In addition, PMI's support for an integrated campaign in Angola that linked measles vaccination with free ITN distribution, helped attract contributions of about 400,000 additional ITNs from other donors.

Artemisinin-based combination therapies have already been procured and delivered to all three countries, making this highly effective treatment more widely available to vulnerable populations. The PMI is providing both microscopes and rapid diagnostic tests in all countries to improve the accuracy of malaria diagnosis. To prevent malaria in pregnant women and reduce the incidence of life-threatening low birth weight among newborns, PMI has supported IPTp. In total, more than 10,000 health providers have already been trained in these critical interventions with PMI support.

Highlights of the activities carried out during the first year of PMI in the three countries include:

Angola: Beginning in December 2005 in Angola, the PMI supported a spraying campaign in epidemic-prone southern provinces, which included training 350 locally-hired spray personnel and protected more than 590,000 people. In addition, PMI provided assistance to a complementary GFATM-supported spraying program that covered an additional 176,000 people. In July 2006, PMI, in conjunction with the Government of Angola, the GFATM, the Measles partnership, ExxonMobil Foundation and other donors supported the free distribution of 826,000 long-lasting ITNs (420,000 contributed by PMI) in seven provinces at high risk of malaria. An additional 120,000 long-lasting nets were sold at subsidized prices to urban residents who had the ability to pay. With support from both the GFATM and PMI, ACTs are now used for the treatment of malaria in health facilities in two provinces, with rapid, country-wide scale-up planned in the coming year.

Tanzania: In Tanzania, beginning in mid-December 2005, PMI distributed 130,000 free long-lasting ITNs (233,000 total with contributions by the GFATM) through local health clinics, more than doubling existing ITN ownership rates among pregnant women and children under age five on Zanzibar and Pemba Islands. Also in Zanzibar, PMI supported an indoor residual spraying campaign that benefited more than one million people. On the mainland, larviciding of mosquito breeding sites in Dar es Salaam is benefiting an estimated 128,000 people and more than \$650,000 of ACTs have been procured and have arrived in-country.

Uganda: In Uganda, to address the alarming rates of malaria mortality in internally-displaced person camps in northern Uganda, PMI distributed over 300,000 free long-lasting ITNs to children and pregnant women. In addition, PMI is helping private net producers expand their markets and more than 500,000 ITNs have been sold to those who can afford to pay. The PMI also procured and began distributing 261,870 pediatric ACT treatments as part of community-based distribution in northern Uganda. In August 2006, PMI completed a spraying campaign in southwestern Uganda that benefited 488,000 people and trained more than 400 sprayers and supervisors who will be capable of implementing future programs. Finally, PMI completed a program that re-treated over 500,000 conventional nets with insecticide.

Plans for Year Two

In Year 2, beginning in January 2007, the PMI expects to reach an additional 30 million persons with lifesaving interventions in seven focus countries (the initial three countries plus the new focus countries of Malawi, Mozambique, Rwanda, and Senegal). Already in 2007, the PMI is supporting indoor residual spraying programs in Tanzania, Angola, Uganda, Zambia and Madagascar (the latter two as “jump start” activities for new 2008 focus countries), which are benefiting over 5 million persons. Other early 2007 activities included the procurement and distribution of long-lasting ITNs in Malawi, the mass re-treatment of nets with insecticide in Senegal and Mozambique, and malaria in pregnancy activities in Rwanda.

Early Impact

After just 15 months of implementation, we are already beginning to see significant progress towards national-level coverage with major malaria control interventions. In the past year, Zambia, as part of a PMI jump-start activity in collaboration with the World Bank and others, was able to more than double the population protected from IRS using DDT and pyrethroid insecticides. The number of households sprayed increased from approximately 250,000 to more than 600,000 houses, protecting roughly three and a half million persons. In the seven Angolan provinces that benefited from the Measles/Malaria ITN Campaign in July 2006, the percentage of children who slept under an ITN has increased from less than 5 percent to more than 69 percent. In these areas 94 percent of households now own an ITN. Since 2006, household ITN ownership in Uganda will have risen from 14 percent to an estimated 50 percent due to the net contributions of PMI and other partners. In Madagascar, PMI, in partnership with Malaria No More and the Measles/Malaria Coalition will fill a gap in ITN stocks to reach 80 percent coverage of vulnerable populations this year. In Zambia, the combined efforts of PMI, PEPFAR, and Global Business Coalition will provide 505,000 long-lasting ITNs to extremely vulnerable populations. With this and other donations, the country will reach its goal of 80 percent of households owning at least three ITNs this year.

Finally, in Zanzibar, where the PMI partnered with the Zanzibar Malaria Control Program, and the GFATM to distribute 230,000 ITNs, a health impact is already apparent. Between 2005 and 2006 there has been an 87 percent drop (from 12,531 to 1,570) in the number of laboratory-confirmed malaria cases on Pemba Island according to local health reports.

PMI and Partnerships

Partnerships are at the heart of PMI's strategy. Given the enormous burden of malaria and the ambitious target of reducing malaria deaths by half by 2010, effective partnerships, particularly at country level, are essential to reach the maximum number of people. For this reason, PMI closely coordinates its activities with host country governments, other U.S. Government agencies, international organizations, other bilateral, multilateral, and private donors, and non-governmental (NGO) and faith-based organizations.

Multilateral Organizations: The PMI seeks to identify and fill gaps in funding from other global partners engaged in the fight against malaria. In each of the Year 1 PMI countries, the Initiative coordinated its efforts with existing grants of the GFATM. For example, in Angola, where a major portion of the drugs needed for the initial phase of ACT implementation are provided through a three-year \$40 million

GFATM grant, PMI has focused on training health workers and health education to support the scale up of ACTs.

In Uganda, 3.8 million ACT treatments purchased by the GFATM were distributed nationwide with technical assistance from PMI in developing a plan for storing, distributing, reporting, and monitoring of these drugs at the national and district level. In Tanzania, PMI complements GFATM activities by training health care workers in 54 of 121 districts nationwide, while the GFATM trains health workers in other areas. The PMI also coordinates its activities with The World Bank's Malaria Booster Program in countries where both institutions are working. At the global level, PMI partners with both WHO and the United Nations Children's Fund (UNICEF) to ensure a steady world supply of high-quality ACTs, ITNs, and rapid diagnostic tests at reduced prices. The PMI and WHO are working together to support increased use of residual spraying with insecticides (including DDT) in Africa. The PMI also works with UNICEF at the country level to coordinate the implementation of activities, such as the joint implementation, in mid-2006, of the MoH-led ITN distribution-measles vaccination campaign in Angola.

Private Sector Partners: When PMI was launched in June 2005, President Bush urged other donors, including the private sector, to join in a broad campaign to reduce malaria mortality by 50 percent in Africa. The President reiterated this challenge at the White House Summit on Malaria in December 2006. Several donors in the private sector are already making major contributions to the fight against malaria, including the Bill and Melinda Gates Foundation, one of the largest funders of health activities in the world today, and Marathon Oil Corporation with Noble Energy, Inc., which are supporting a highly successful malaria control project in Equatorial Guinea. The PMI also supports technology transfer to Tanzanian net manufacturers to ensure in-country capacity to produce high-quality ITNs.

In FY 2006, the largest direct financial contribution to PMI from an external source was a \$1 million donation from ExxonMobil Foundation for activities in Angola. This funding helped support the nationwide Malaria Indicator Survey that will serve as a baseline against which to measure progress towards targets. This funding also supported promotion and health education activities for ITNs, and strengthening of the Ministry of Health pharmaceutical management system. In addition, ExxonMobil contributed 70,000 nets to the integrated measles vaccination-ITN distribution campaign. In FY 2007, ExxonMobil has again donated \$1 million in support of PMI's activities in Angola.

In Uganda, PMI is partnering with the nonprofit organization Malaria No More to procure and distribute 550,000 free long-lasting ITNs through a national mass campaign targeting districts with low net coverage (350,000 long-lasting ITNs from Malaria No More, 200,000 long-lasting ITNs from PMI).

In Zambia, PMI and PEPFAR have joined forces with the Global Business Coalition and an NGO coalition (led by World Vision) to distribute more than 505,000 long-lasting ITNs to particularly vulnerable groups such as the poorest of the poor and households affected by HIV/AIDS.

In Madagascar, the American Red Cross, Malaria No More, and PMI will contribute 110,000 long-lasting ITNs and \$1.3 million in distribution costs to an integrated measles-malaria campaign, which will benefit more than 1.4 million children.

Malaria Communities Program:

On December 14, 2006, President and Mrs. Bush hosted a White House Summit on Malaria in Washington, D.C., to raise awareness about malaria and mobilize a grassroots effort to save millions of lives from the disease in Africa. This event brought together international experts, corporations and foundations, African civic leaders, and voluntary, faith-based, and non-profit organizations. At the Summit, the President and First Lady launched the Malaria Communities Program—a \$30 million initiative to build new and sustainable malaria control projects in Africa by providing grants to indigenous non-governmental organizations and faith-based organizations to implement community-based malaria prevention and control activities in PMI countries. The PMI just released its initial Request for Applications for the program.

Monitoring and Evaluation

The PMI has established a single set of targets for its four primary interventions: ITNs, IRS, IPTp, and ACTs. These targets establish the levels of coverage to be achieved by the end of PMI and are the same for each focus country. The targets support the achievement of PMI's goal to reduce estimated malaria-related deaths by 50 percent. The PMI's evaluation framework is aligned with the standard methodology for malaria program evaluation adopted and promoted by the Roll Back Malaria Partnership. Coverage indicators will be estimated at baseline, midpoint, and

at the end of PMI. The impact of PMI-supported efforts on deaths in children under five years of age will be estimated at the end of PMI compared with baseline information collected in each country.

The evaluation strategy includes:

- Measurement of coverage with ITNs, IPTp, ACT's, and IRS at baseline, mid-point, and the end of PMI to see if coverage at the national level has increased as expected.
- National estimates of deaths from all causes for children under five at baseline and at the end of PMI. Deaths from all causes among children under five is a routine health indicator collected through nationally representative surveys, such as Demographic and Health Surveys and Multiple Indicator Cluster Surveys, in countries where routine registration of deaths is not available;
- Collection of data on deaths attributed to malaria from selected demographic surveillance system sites and, in some cases, national surveys. This information, along with information on deaths from all causes for children under five, coverage of malaria interventions, and other relevant factors, will be analyzed together to estimate reductions in malaria-associated deaths; and
- Collection of data on the frequency of anemia and malaria infection among children under five to assess impact on malaria-related morbidity.

The PMI as a Catalyst for Improving Maternal and Child Health (MCH) and Health Systems

The high impact malaria prevention and treatment interventions of the PMI are implemented in target countries in a way that benefits and improves broader MCH efforts and strengthens health systems. For example:

- PMI support of IPTp and the distribution of long-lasting ITNs will help improve the scope of antenatal care (ANC) services provided at first line health facilities and may help increase early use and frequency of use of ANC services. To further support ANC, in many countries PMI will support the purchase of iron and folate supplements, the printing of ANC cards, information, education, and communication activities to promote ANC attendance, and other actions to improve the overall quality of antenatal care;
- We are supporting the expansion of community based services, outreach, and community volunteer programs that can deliver malaria as well as other high priority MCH services (e.g., pneumonia and diarrhea treatment). The availability of ACTs in community programs has the potential to increase utilization of community-based services and the effectiveness of local health agents;
- The PMI supports the strengthening of pharmaceutical management systems that will improve the management of not only malaria commodities but all essential medicines that are needed for public health programs;
- PMI supports strengthening of laboratory services for malaria diagnosis, and in so doing strengthen the overall quality and quantity of laboratory services;
- While training of health care workers is essential, on-the-job supervision is equally critical. The PMI supports ministry of health efforts to improve the quality and quantity of health care worker supervisory visits in a manner that integrates malaria with other MCH services;
- PMI provision of ACTs and long-lasting ITNs to health facilities should increase the population's utilization of these facilities. Preliminary evidence from an operational research project in Mali shows an increase in attendance at health clinics and care-seeking from community health workers following provision of free ACTs;
- In all countries we are supporting improvements in the health management information system; and
- PMI is collaborating with other major health initiatives, such as PEPFAR, to strengthen and integrate MCH services.

We will be closely monitoring the impact of the PMI on public health programs, including improvements in access of the population to services, the quality of services, and the utilization of public and private facilities.

PMI and PEPFAR Collaboration

The President's Malaria Initiative (PMI) continues to partner with the President's Emergency Plan for AIDS Relief (Emergency Plan/PEPFAR) in countries that are targeted by both programs. By 2008, five countries will be jointly covered by the two Presidential initiatives. The collaboration of PMI and PEPFAR has already enabled countries to provide comprehensive services for some of the most vulnerable groups

for both diseases, including pregnant women, people living with HIV/AIDS (PLWHA) and orphans and vulnerable children (OVCs) under age five. PMI and PEPFAR are actively collaborating to ensure integration of health care worker training and supervision, strengthening of laboratory services, and integration of interventions, especially in the context of antenatal care.

Because of technical and programmatic overlap between PMI and PEPFAR, the two programs are developing a framework for cooperating and sharing resources. This collaborative framework will allow both initiatives to avoid duplication, ensure safety, facilitate maintenance of appropriate and efficient funding streams and result in an overall increase of coverage of key interventions.

PEPFAR and PMI have asked its country teams to work together to ensure that USG resources are maximized and leveraged to mobilize host government resources to address the problem. For example, PMI is leveraging resources with PEPFAR in programs that expand the use of cotrimoxazole and insecticide treated nets.

Capacity Building

One of the guiding principles of the PMI is to build the capacities of national malaria control programs, district and health facility workers, and private sector providers. The PMI launched IRS programs in all three first-year countries, building the capacity of national programs to implement these high impact activities. For example, in Uganda, the NMCP introduced IRS to Kabale district, which is prone to epidemics, and protected over 500,000 persons. As a result of the experience, the NMCP strengthened their IRS policies to include spraying in high transmission and internally displaced person settings, in addition to IRS for epidemic control. The NMCP also improved planning, reporting, and environmental and human health safety requirements related to IRS as well as hired additional entomologists to manage the program. In total, over 1,300 persons were trained as part of the IRS programs supported in Uganda, Tanzania, and Angola.

In Tanzania, the PMI provided assistance to the NMCP to improve the procurement, storage, inventory management, and distribution of ACTs as well as established a commodity tracking system. This support included the training of trainers for 32 regional pharmacists and 150 district-level pharmaceutical personnel.

During its first year, the PMI trained over 10,000 health workers and spray personnel in the initial three countries and built capacities of national programs to plan, conduct, and supervise high quality prevention and treatment activities. In Uganda, Senegal, Rwanda and other countries, the PMI is expanding community health programs by helping to train, supervise, and support community health agents who have the potential for delivering a broader range of essential services.

Sustainability

Sustainability of malaria control programs is a critical goal of the PMI. To this end, the PMI aims to promote:

- Increased funding by host governments of NMCPs;
- Increased diversification and long-term funding of malaria control activities by donors and international organizations;
- Improved quality of national malaria control activities, including the training of critical masses of health workers in malaria interventions;
- High and sustained national coverage rates for malaria prevention and treatment interventions and the full integration of these interventions into other health programs such as MCH and HIV/AIDS;
- Involvement of community, voluntary and private sector organizations in malaria control activities at national, district and community levels; and
- Increased knowledge of malaria at the community level and demand for high quality preventive and curative services at all levels of the health care system.

With progress on each of these elements, NMCPs in Africa will become more effective, sustainable, and accountable. More importantly, national leaders, health managers, and persons living in malaria endemic areas will expect and demand effective, nationwide malaria control activities and will help to make this happen. As with child vaccines, there should be an international mandate that no malaria endemic country will suffer stock-outs of essential malaria commodities. Finally, national governments and international donors and organizations will be judged by the quality and coverage of their national malaria programs.

There is now evidence that the PMI, the GFATM and other malaria donors are helping to make important progress on all these key elements of sustainability. For example:

- There is clearly increased international and national level funding for malaria control activities. In PMI countries, national governments are hiring additional staff and providing increased operational costs for malaria prevention and treatment.
- National coverage rates for malaria interventions are increasing rapidly. For example, ITN household ownership rates are now approaching 50 percent for all three first-year PMI countries, compared with household ownership levels of less than 10 percent only a few years ago; and
- More community and private sector organizations are being mobilized as evidenced by the partnerships established by the PMI.

Accountability and Transparency of PMI

Providing information to the public on funding allocations, procurements, program activities, milestones, and results in a timely and accurate manner is a high priority for PMI. The PMI communication strategy calls for information about PMI and its operations to be made available through multiple communication channels, including PMI newsletters, public announcements, press releases, various international events, and the PMI Web site (www.fightingmalaria.gov). Latest news and updates on PMI activities from the field are continuously collected and shared through these channels. Key items that will be posted to the PMI Web site include:

- Contracts/grants. (As of December 31, 2006, more than 90 percent of all contracts and agreements related to Fiscal Year 2006 PMI activities were posted on the PMI web site);
- Annual reports from PMI implementers;
- Program audits; and
- Annual country PMI operational plans that describe the strategies, activities, implementing mechanisms, and funding for the coming year.

USAID Malaria Programs outside of the PMI

Country and Regional Programs: In FY 2007, USAID will be supporting comprehensive malaria prevention and treatment programs in 11 African countries. Eight of these have been selected to become PMI countries beginning in FY 2008. All programs are directly supporting NMCPs to fill critical gaps in programming. Focus is on scaling up the high priority interventions mentioned above.

Outside of Africa, USAID supports two regional malaria activities in areas with severe problems related to multi-drug resistance: the Amazon Malaria Initiative in South America and the Mekong Malaria Program in Southeast Asia. As a result of these USAID-supported efforts, all 8 countries making up the Amazon Basin of South America and all 5 countries in the Mekong Delta Region have updated their national treatment policies and are now using ACTs as recommended by WHO. Support is now being provided to ensure that the new treatment policies are being effectively and safely implemented. In addition, because of the growing problem with fake or substandard antimalarial drugs, particularly in Southeast Asia, these two programs are helping ministries of health strengthen their capabilities for monitoring the quality of antimalarial drugs circulating in their countries.

Malaria Vaccine Development: USAID continues its commitment to development of a malaria vaccine to complement other malaria control measures. USAID actively collaborates with the other major groups involved in malaria vaccine development world wide, including the Department of Defense, the National Institutes of Health, CDC within HHS, the Food and Drug Administration, WHO, the European Commission, the European Malaria Vaccine Initiative, the Wellcome Trust, the Bill and Melinda Gates Foundation, the Malaria Vaccine Initiative, and GlaxoSmithKline. Focus is on translating research findings into vaccines that can be tested in human volunteers as quickly as possible.

Field testing has accelerated in recent years with one vaccine with moderate efficacy scheduled for licensure within five years, supported by other partners. In the meantime, USAID's support is focused on developing other vaccine options. A vaccine candidate will begin Phase 2 efficacy trials in the field this year, supported by USAID with other partners. These research and development efforts form a necessary and important part of the worldwide thrust to combat this disease.

Other Research: USAID's support to Medicines for Malaria Venture, a public-private partnership for new drug discovery and development, is contributing to the development of a pediatric formulation of artemether-lumefantrine and several new and very promising combination antimalarial drugs, which should be registered within the next 2–3 years. In collaboration with WHO, USAID is funding research on the safety of ACTs in pregnant women, community-based use of ACTs, and the

integrated management of malaria and acute respiratory illnesses in children under five.

Conclusion:

The PMI is helping to change attitudes toward malaria control. No more a “fact of life” or an “intractable problem” in sub-Saharan Africa, malaria can be beaten back with a concerted effort from all partners.

Mr. PAYNE. Thank you very much for your testimony. Many health experts contend that malaria is both a cause and an outcome of poverty. As I indicated earlier about the Millennium Challenge and the whole question of trying to reduce abject poverty, which is the overall goal of the Millennium Challenge, some have suggested that economic and political development must be advanced in conjunction with public health initiatives in order to ensure malaria eradication.

Do you have views on the intersection of poverty and malaria and on integrating poverty reduction strategies with malaria control and eradication efforts? Are there other organizations that you will be joining with as you move forward?

Admiral ZIEMER. Sir, my perspective is that PMI is actually addressing that. I think we all know that, as you noted so well at the beginning of your opening statement, health programs and poverty are at the root of so many of the challenges in Africa, and there is a vicious cycle there.

The amount of money being put into health care and treatment is really a burden to the average family in many of the poor areas in Africa.

The PMI is addressing malaria with a two-pronged approach. Number one, it is saving lives. It is unconscionable that today 3,000 kids are going to die, and so we are in the business of using proven, effective tools to save lives. At the same time, we are working toward our programs capacitating national, community health programs, realizing that, as these programs mature, it is going to bring a workforce to work that is healthier, kids are coming to school, and it is going to be adding, in a significant way, to building more stable and healthier communities.

When I was in Angola last month, in one of the southern provinces, I asked the governor what his major problem was. I expected him to say education or business, needed more business development. Without batting an eye, he said, “Health, we need to get our health programs under control.”

Mr. PAYNE. Thank you. As a matter of fact, that leads into, on that same theme because it is so key, and we know that one of the main problems in Africa is the lack of a sustainable, in many countries, health care delivery system. We are still struggling with that here in the U.S., so you know it is much more difficult in developing countries.

But health experts agree that most malaria control measures are human resource intensive and require significant staff training. However, sub-Saharan Africa has significant shortages of health care workers, as you well know. How might malaria programs be expanded in view of health worker shortages? Some health experts contend that the compensation and benefit packages that local health workers are awarded in U.S.-supported HIV programs have drawn people from the local positions, and some critics contend

that this has exacerbated the understaffing of the public health systems of the sub-Saharan African countries or some of them.

In light of the increase in the support for malaria programs, do you have any idea how we can work toward ensuring that our U.S.-supported malaria programs do not distract from local health workers and from public clinics and facilities and whether, not necessarily specifically with your particular program, but the whole question of increasing the pool of health workers, which could, you know, perhaps be done through some other NIH programs that can create more health care workers so that we do not impact so much on the few?

Admiral ZIEMER. Sir, the deficiency in the whole health care infrastructure is a major challenge in many of the countries in Africa. We recognize that in USAID, and I know PEPFAR and PMI are looking at that at the broader level. The PMI, again, is focusing in on specific program initiatives and working directly with the national malaria control plans, which are supported by the minister of health, and as we move forward with our specific programmatic targets and goals, we are, in fact, looking at where we can capacitate those members in the health system, either in the public health or the community health, to enable them to carry out the distribution of the drugs and/or the spraying and/or the treatments in the prenatal clinics.

So there is an indirect benefit of PMI in building the capacity of some of the clinics and the public health force. We are also spending an awful lot of attention and effort in developing the community-based network, which becomes a resource for the health system, but it is an issue that needs to be tackled by all of us collectively as we look at the infrastructure requirements to maintain viable health programs. We know you cannot fight malaria and sustain it without a vibrant, active health system.

Mr. PAYNE. Finally, let me just ask one final question. We know that there needs to be everyone pitching in, and, in 2000, 44 heads of state from Africa and governments in the African Union declared that they would commit to allocating 15 percent of their national budgets to health by 2005. However, at the end of that term, only one country had attained that target, and about one-third reached at least 10 percent, but others, of course, have missed the target.

Why do you think that African governments did not meet their targets, and what might we do to prod them along and work with them in trying to reach these goals?

Admiral ZIEMER. Sir, I think all of us have the propensity to set targets and goals because we know we need a target, but often when we set these goals, and we come together and have ambitious targets, if we do not have the systems in place and the infrastructure in place to achieve those goals and the financing and the leadership, and then hold ourselves accountable, then, in fact, there are going to be unachieved goals.

Part of the vicious circle is that we keep saying, "Let us save lives," but we do not do what needs to be done. I am really pleased to tell you, sir, that within PMI, working with our host governments, our plans are actually building capacity because it is mapping out business plans where I can show you, in Rwanda, we have

a gap of \$5,330,000 to do certain preventive treatments in the context of the malaria plan.

When you can see targets like that and then partner with people like Malaria No More, Global Business Council, and our other very technically savvy, sophisticated donors, we can start filling and meeting these requirements. But, first of all, we all need to sit down, build that plan, and then stick to it, but just stating goals is just cheerleading with no end result in sight.

Mr. PAYNE. Thank you very much. Mr. Smith?

Mr. SMITH OF NEW JERSEY. Thank you, Mr. Chairman. Admiral, again, I want to thank you for your bold and effective leadership and just ask a couple of questions.

First, beginning with the intermittent preventive treatment in pregnancy, on page 5, you make a very strong—first of all, all of your testimony is extremely well done. We receive a lot of testimony on this committee, and, in my many years in Congress, this is among the most comprehensive submissions I have seen. So I want to thank you for that.

You have answered many of our questions, but you point out that malaria infection during pregnancy poses serious health risks for both the mother and her unborn child, and you point out, because malaria parasites sequester in the placenta and impair the delivery of nutrients to the growing fetus, a mother's newborn child is at higher risk of low birth weight, a leading cause of poor infant survival in Africa.

You point out that the wide-scale use of intermittent, preventive treatment could prevent up to 75,000 to 200,000 infant deaths each year in Africa, and I am wondering if you have any numbers. I know it is early, or any expectation as to how many miscarriages could be prevented? Obviously, a child who is suffering low birth weight or has other problems associated with the infection is less likely to survive, and I wonder if you might touch on that issue as well with regards to miscarriages.

Admiral ZIEMER. Sir, first of all, thank you for your comments, and I would like to pay tribute, at this point, to the excellent staff behind the PMI. The virtual staff and the actual staff, which is made up of the CDC team and the infectious disease team at USAID, have put together a pretty remarkable staff, so I give them credit for the comprehensive report that you referenced.

Looking at the statistics on SP. At this point, as you know, anytime you set targets and goals, it is very tough to measure results until you have a good baseline. We have science that clearly indicates that sulfadoxine-pyrimethamine treatment in pregnant women is, in fact, effective. But, to date I cannot answer specifically the questions that you have asked.

We are working on, as a very strong component of the PMI, investing in monitoring and evaluation so that when we see you the next time around, and you ask questions, we are able to start putting together solid, accurate information. But right now, as we get started, it is very difficult to give you measured, accurate answers to those very important and specific questions.

Mr. SMITH OF NEW JERSEY. Okay. I appreciate that, and it is early. How much of a focus does the pregnant women's issue pose for PMI? Is it something that is at the top of the list, because it

would seem to me that you are saving both mother and child, and that commitment, you know, will have enormous results that impact—

Admiral ZIEMER. The PMI is focusing in on two major vulnerable groups: Pregnant women and children under five. People with HIV/AIDS are also at risk of malaria. But pregnant women are one of the target areas, and we are aggressively identifying the demographic areas and integrating our work on that focus group through the antenatal clinics which exist.

What is interesting, the figures that I am getting, are that 70 percent, on an average, of pregnant women have access to clinics. So as we bring in our malaria programs, it is complementing the existing work at those clinics.

Mr. SMITH OF NEW JERSEY. Are you finding cooperation with regard to those prenatal clinics in the countries where PMI is operating?

Admiral ZIEMER. Not just cooperation but full, wholehearted cooperation.

Mr. SMITH OF NEW JERSEY. Let me ask you, with regard to the eradication effort, Africa remains the only continent in the world where malaria is widely endemic, and while parts of Southeast Asia bear high burdens of the disease, malaria-endemic areas are concentrated with certain regions of select countries.

The World Bank asserts, in its booster program report, that the commitment and persistence behind eradication efforts elsewhere were never applied in Africa's highly endemic areas. I wonder if you might speak to that issue with regard to eradication efforts.

Admiral ZIEMER. I think, as the world community took on malaria in the 1940s, fifties, and sixties, and the successes that we enjoy in the areas where we have brought malaria under control or almost eliminated it, we should not celebrate the fact that Africa was left behind.

I think that reflects on a number of factors: Number one, a lack of will, a very challenging environment, lack of plans, lack of leadership, and lack of funding. So I think, as we move forward, we can actually see a reversal of the historical experience, and if we start the discipline of coming together in partnership on national plans, where we can see the requirements expressed and funded and then comply with it, we can actually reverse the situation that you just expressed.

I am convinced that we can do this with the resources that seem to be coming to bear. But it means partnership, a common plan and goal.

Mr. SMITH OF NEW JERSEY. You know, on partnership, a majority of the health care assets are wholly owned by faith-based organizations: The Catholic Church, the Anglican Church, the Evangelical Churches, and mosques, but mostly the first three that I mentioned.

How much of a partnership has your office established with faith-based organizations? Are you finding that they are ready partners, ready to provide the venue, as well as the health care expertise?

Admiral ZIEMER. I fully support the faith-based initiative program at the national level. We work closely with the USAID faith-

based initiative Office. Terri Hasdorff is running a great program. But speaking from a perspective of PMI, we look at NGOs, faith-based organizations, and community implementers as key and critical for not only doing our program now but for sustaining it in the future.

How do we engage them? As we move forward with our host countries, we are having assessment trips and then operational plan development sessions. At those meetings, both of those, we have stakeholder meetings where faith-based organizations, NGOs, community organizations are encouraged to come in, raise their hand, and see how they plug in. So we are making a deliberate, intentional effort to consider them as partners.

Additionally, as I referred in my opening statement, we have set aside \$30 million over the next several years to recruit and identify some of the smaller community and faith-based organizations that have the capacity and are able to engage on some of these technical programs to move forward.

So we are looking at opportunities to engage them and get them. To me, it is part of the capacity-and-sustainment mechanism.

Mr. SMITH OF NEW JERSEY. I appreciate that. I would hope that our Government would be very aggressive in that outreach, and I say that for a number of reasons. One because it has been my experience, working on the human rights side—for the past 27 years as a Member of Congress—that it is often the church that is the critic of governments, and health ministers who are part of governments are often loathe to then embrace church health care assets and individuals when these individuals are the very people saying that corruption, human rights abuse, and other kinds of bad deeds have occurred.

So we have almost to bypass, in some cases, or reach out in a more aggressive fashion. I think that is one of the flaws in the Global Fund. I think it is outrageous that so many of the faith-based health facilities in Africa run by the Catholic Church, for example, are completely bypassed by the Global Fund.

They find some other partners, whoever they are, but it is not the churches. I think part of that is this animosity, especially by dictatorships, and less than democratic governments, who have health needs that have to be adhered to and addressed. So it is a “Catch-22” in a sense, but I think we have to have our eyes wide open to find those opportunities.

I have asked bishops, health care providers, and doctors in every African country, as well as people I meet here, and it is the same tale of being ostracized and left out. So I am very glad to hear that PMI is aggressively seeking, and I hope we would be even more aggressive going forward.

Let me ask you, what is the greatest challenge that you face right now, and are there any legislative tools that you need, your office needs, from Congress besides money?

Admiral ZIEMER. First of all, I want to thank this committee and this Congress for supporting the President’s Malaria Initiative. The amount of resources that is coming to bear right now has enabled us to save thousands and thousands of lives, or, at least, keep them from catching malaria.

So there seems to be an opportunity to say things are going better now than they have in the past. As we look to the future, sure, we will need resources. But as we move forward and put the building blocks together to help our African countries, there is going to be a lot of requirements that pop up as we look at how we sustain health care, build health care, and integrate other health programs, such as child survival and PEPFAR. We must all integrate together to achieve the common goal of pulling people out of this health care crisis in so many areas and to alleviate poverty.

Mr. SMITH OF NEW JERSEY. Let me ask just two final questions very quickly. The 2005 World Malaria Report estimated that \$3.2 billion will be needed each year to effectively control malaria in 82 countries. Is that a good ball park estimate, or is it the order of magnitude where we should be thinking we need to come up with the money?

And, secondly, the President said today that he will be bringing this issue up with his G-8 friends and members. Can you tell us what he is going to ask of the G-8 members?

Admiral ZIEMER. The \$3 billion total figure is one that the World Health Organization and Roll Back Malaria already use. And it seems to be as accurate an indicator that we have \$2 billion for Africa and \$1 billion needed for the rest of the world.

If that is correct, we still need—with all of the resources coming in from Global Fund, World Bank, private sector, U.S.—\$1.5 billion.

Mr. SMITH OF NEW JERSEY. That is the shortfall.

Admiral ZIEMER. So we need more cash in order to implement malaria prevention and control.

Mr. SMITH OF NEW JERSEY. And what will Bush be asking the G-8 to do?

Admiral ZIEMER. I think, as we sit back and reflect at how the United States' private sector and public sector have responded in this initiative specifically, we should be pleased. And to the extent that the President can say, "Look at what is happening in the United States, in terms of the private sector and business cooperation," and put the challenge out there about replicating that by our other colleagues in the other countries, that would be a good thing. So I am really pleased to see and to hear that the President made that statement.

Mr. SMITH OF NEW JERSEY. I guess you are not at liberty to say what he will be asking the G-8 to do.

Admiral ZIEMER. Sir, I do not have that information, but I was pleased to hear that.

Mr. SMITH OF NEW JERSEY. I am sure you will be feeding into that information as to what the need is.

Admiral ZIEMER. Right.

Mr. SMITH OF NEW JERSEY. Thank you so much, Admiral.

Mr. PAYNE. Thank you. Ms. Woolsey?

Ms. WOOLSEY. Thank you, Mr. Chairman. About the funding, are you able to track the cause and effect? Are you spending all that is available to you? If you had more, would you spend it, or do you have the infrastructure to do that?

Admiral ZIEMER. This year, PMI was given \$135 million, and then Congress generously added another \$25 million. That has al-

ready either been programmed or will be programmed, including the additional money.

We have gaps in all of our malaria control programs that will allow us to obligate these resources. As we move forward, and as these plans and the requirements become clearer, we will be able to articulate our requirements. But we know that there is a gap that exists out there, not only in malaria, but in all of the other programs.

Ms. WOOLSEY. So now, when the funds are made available, and with the partners, faith-based or otherwise, is the money invested locally? Is it local folks that are being hired within these programs because that would be a good way to certainly help the economy, or do we bring people in internationally?

Admiral ZIEMER. Our programs are based on supporting the national plan. So as we work with our host governments, we are looking at the requirements as they are depicted and as we work and help them.

In the case of where we are actually investing the money in carrying out the plans, we have hired trained workers to actually do the spraying.

Ms. WOOLSEY. Local workers.

Admiral ZIEMER. Yes. To the extent that we can build capacity within the country's health care system, we are doing that if it is clearly a requirement within the National Malaria Control Plan and they have the capacity and capability.

We also have the challenge of being accountable for the funding; and, in some cases, the accountability factor is an issue that helps weigh whether or not we can just provide the cash up front to do a job. So we are committed to the principle of building capacity. I do not have the exact figure, but I would say the majority of the actual people employed to do the work are nationals who are contracted through the national agencies. I can give you figures on that, if we have them. But all of that information either is on the Web or will be on the Web as we move forward.

Ms. WOOLSEY. Are there other countries, besides the 15 PMI focus countries, that are asking to be included in the program to expand it beyond the 15 countries?

Admiral ZIEMER. Right now, we are focusing on 15 countries, as far as the President's Malaria Initiative. That is predicated on some criteria that is based on the burden of malaria, whether or not the country has a committed plan, that it is clear, that there is national will, leadership, capacity and capability to implement that plan, and that they have mechanisms in place to handle and work with other agents, Global Fund and World Bank.

In addition to that, we have our own coverage requirements: 85-percent coverage to the most vulnerable population groups.

So, with all of those criteria factored in, the 15 countries that are on our list were selected. Now, there are three countries in Africa that are not focus countries: Congo, Sudan, and Nigeria. Those are high-interest countries, and, within the last year, we have increased the budget to those three countries because they have a critical burden of malaria. We have excellent field staff who is working at basically building their malaria programs.

I was just handed a note here that 100 percent of the spraying teams are national hires.

Ms. WOOLSEY. One more short question: Is there any part of the program that is objected to, that they like the nets, but they do not like the spraying, you know, or is it, accept the whole program or do not accept it?

Admiral ZIEMER. When we go in and begin the assessment and the development of the operational plans, it is done to support the requirements that are there. This is done with the scientific research that has been building, where, in fact, we have two programs for prevention, both nets and spraying. Both are very, very effective in preventing people from being bitten, and it kills the mosquitoes. On the treatment side, of course, we have the ACTs and SP for IPT in pregnancy.

So as we work with the national plans, we are looking at gaps that exist in their countries and we are encouraging an integrated approach to taking on malaria. Therefore, to the extent that they do not have an integrated plan, we work with them to present and support an integrated plan.

In some cases, the country has an integrated plan: The ACTs are funded, say, by Global Fund, or the nets are funded by UNICEF. Then we will take our monies and redirect it to other program requirements.

Ms. WOOLSEY. Thank you, Mr. Chairman. Thank you.

Mr. PAYNE. Thank you very much. Before you leave, let me just ask one additional question. How is PMI working with the Global Health Fund and even the PEPFAR? I know it is probably easier with the PEPFAR, but with the Global Fund on AIDS, Tuberculosis, and Malaria, how do you interface with them?

Admiral ZIEMER. We are closely partnering with the Global Fund and PEPFAR. With our Global Fund colleagues, again, the entry point for Global Fund funding is at the national plan. As we construct the plan, assess the plan, and refine the plan—and we see that Global Fund funding is, in fact, available—then we will either co-fund, parallel, or redirect our funding somewhere else.

So we look at the Global Fund as a strong resource and partner, and they bring a lot of benefits in terms of the financial accounting. We are working with them and we are in close dialogue with their board members. I have attended a couple of the meetings, and we are interested in looking at the broad financing prospects of the Global Fund, not only HIV/AIDS, but, clearly, TB and malaria. We saw a little dip in malaria, so what we have done, sir, is to provide additional technical assistance to the PMI countries in this next round so that their grants will be a little bit stronger and, hopefully, more competitive in the next round. So we are working with our partners to be more competitive.

In PEPFAR, I work with Mark Dybul. Our staffs are talking. Again, when we enter a country, in many countries we are overlapped, and the same countries were teaming up with their folks and our folks, and we are looking at places where we can avoid duplication, we can share management systems, and, in some places, like the prenatal clinics that are working on the prevention of mother-to-child transmission, and we are working the IPT phase in our IPT programs.

Mr. PAYNE. Thank you very much. I think that Mr. Smith has one additional question.

Mr. SMITH OF NEW JERSEY. Just briefly, with regard to indoor residual spraying, as you point out, WHO has approved 12 insecticides it considers effective and safe for use for indoor residual spraying. There are always urban myths and people concerned about what could be the negative impact of a spray or of a pesticide. Some of it could be with validity.

I would ask, have we peer reviewed those 12? Have we looked at them? Do we consider each of those 12 that we, I guess, are promoting to be sufficiently safe for all people, including young children?

I mention this only because, 10 years ago, I formed an Autism Caucus, and one of the reasons why, we thought we had a spike in one of my townships of Brick, and there were all kinds of theories as to what may trigger autism, and we know that one of every 150 of our people have autism in America, and there is a real problem overseas with it, and one of the theories, and I think there is a great deal of anecdotal evidence to it, is that Thimerosal, used in vaccinations as a preservative, a Mercury-based preservative, has triggered autism, and it has manifested almost immediately after the vaccination.

I raised that with CDC people 10 years ago, and they showed me the door and said, Do not dare bring that up. And I am a big child-survival guy. As Nils knows, I believe, vaccinations are absolutely crucial to the health and the well-being of children around the world, but if a preservative is causing a problem, we need to get it out of there. We have received our own domestic; it is, however, not out of the international yet.

So my question is, on the 12 sprays, are they safe and effective?

Admiral ZIEMER. We have signed up, as a country, and approved the 12 insecticides in the POPs Treaty. I know for a fact that CDC and we have membership to the Insecticide Reviewing Board. I cannot answer your question specifically on the application that you just mentioned. I will certainly take note of that and get back to you, but right now—

Mr. SMITH OF NEW JERSEY. I just use that as an example of the different situation, but there might be—

Admiral ZIEMER. We are signatories to the fact that those 12 insecticides are proven for indoor residual spraying, and they are safe, and they are effective. They are saving lives and killing a lot of mosquitoes.

Mr. SMITH OF NEW JERSEY. Okay. Thank you very much.

Mr. PAYNE. Let me thank you very much. I am glad you asked that question because we have also heard from some groups that have concerns about the spray. But, once again, let me thank you very much for the work that you have done so far. We certainly look forward to your achievements as we move forward. Thank you very much.

Admiral ZIEMER. Thank you, sir.

Mr. PAYNE. We will now proceed to the second panel. If you would come up, we will start with Dr. Stefano Lazzari, who has been indicated as senior health adviser at the Global Fund to Fight AIDS, TB, and Malaria. He will give us the Global Fund update

and discuss progress being made. Dr. Lazzari has been in the medical and technical fields for many years and has worked for the World Health Organization in Geneva and brings her medical background into her job.

Then, secondly, we will hear from Mr. Nils Daulaire, who is CEO of Global Health Council. He will be discussing the links between malaria and the larger development challenges, in addition to linkages between the United States and global advocacy. His background is extensive. He has worked for USAID for International Development and has been a lead negotiator in a number of health international conferences in Cairo and the Beijing Conference for Women, and the Rome Health Food Summit in 1996, and so he brings in a tremendous background in this area.

We will then hear from Dr. Adel Chaouch, and he can correct me if I did not say it correctly, who is director of corporate responsibility at Marathon Oil, has done a lot of work in the corporate-responsibility area, has worked in Equatorial Guinea, has been involved in the area, and is a professional engineer, and we look forward to hearing the private sector's role.

From Uganda, we will have Ms. Enid Wamani, who is Secretariat Coordinator for the Africa Medical and Research Foundation in Kampala. She will share her field perspective and successor programs on the ground, as well as the importance of capacity building, and she has been very involved with NGOs throughout her life and has really been very involved in malaria prevention on a national and international level.

Finally, we will hear from Ms. Susan Lassen, who is the NetsforLife Coordinator with the Episcopal Relief and Development organization. She has been very active, a registered nurse, and has worked in health care but has been involved for many, many years. When you read about the Biafra situation, you know that you have been involved for some time. So we are so happy to have your expertise and your work with Save the Children. So we are certainly looking forward to your testimony.

We will hear in that order. We can start with Dr. Lazzari. Thank you. As you know, we will keep our remarks to 5 minutes so that then we may have an opportunity to ask questions. Thank you very much.

STATEMENT OF STEFANO LAZZARI, M.D., SENIOR HEALTH ADVISER, THE GLOBAL FUND TO FIGHT AIDS, TB AND MALARIA

Dr. LAZZARI. Chairman Payne and Ranking Member Smith and distinguished members of the committee, I would like to thank you for convening this hearing on Malaria Awareness Day and for inviting me to testify on behalf of the Global Fund to Fight AIDS, Tuberculosis, and Malaria, not to mention the opportunity to listen to the speeches and statements by President and Mrs. Bush at the Rose Garden. It is something I will treasure for years to come.

I am honored to be here today to present to you a brief overview of the Global Fund's support of malaria control programs, on the progress we have made so far and on the challenges still ahead of us. With your permission, I would like to make a brief summary of my remarks and submit my full testimony for the record.

Mr. PAYNE. Without objection.

Dr. LAZZARI. Created in 2002, the Global Fund has quickly become a leading force in the fight against AIDS, TB, and malaria. In its first 5 years, it has committed a total of \$7.1 billion to 136 countries around the world, making it the largest international financier of efforts to control TB and malaria and among the first three largest funders of HIV/AIDS programs.

Currently, the Global Fund provides about two-thirds of all international financing for the fight against malaria. On behalf of the Global Fund, I would like to express my sincere thanks to the Congress and the American people for their strong support of the Global Fund. With its historic contribution of \$724 million for 2007, total U.S. financing for the Global Fund has now reached \$3 billion, which equals 29 percent of all paid-in contributions and firm pledges, to date.

The Global Fund, as of today, has approved a total of \$2.6 billion to support 117 malaria grants in 76 countries worldwide. Of this total, \$1.7 billion has been approved for supporting malaria control efforts in 41 African countries. A total of \$950 million has been disbursed to countries to date.

Following the principal of national ownership, the priority, goals, and targets for the grants are established by the grantees. The Global Fund supports a comprehensive approach, including indoor residual spraying, insecticide-treated bed nets, intermittent preventive treatment for pregnant women, and treatment for malaria, according to national treatment guidelines.

This country-driven process encourages funding not just for commodities but also for other country priorities, such as strengthening and sustaining the health workforce and delivery system. Currently, around 60 percent of the resources for malaria grants are for capacity building and health system strengthening.

While in the majority of malaria grants the principal recipients are government institutions and, in some cases, U.N. agencies, more than 20 percent has gone to nongovernmental organizations, foundations, and faith-based organizations. Even where governments and U.N. agencies are principal recipients, the funds are frequently directed to community-based or faith-based organizations as sub-recipients, recognizing that they are better positioned to deliver community-based services to meet the needs of hard-to-reach populations.

One example is the Churches Health Association of Zambia, which is administering HIV, TB, and malaria grants totaling nearly \$41 million in that country.

Combining all of the planned country targets during their lifetime, current malaria grants will finance the procurement and distribution of more than 109 million insecticide-treated bed nets and deliver 264 million artesunate combination treatments. Current results, as of December 1, 2006, include the distribution of 18 million bed nets, the delivery of 23 million effective treatments for malaria, and the provision of 2.3 million preventive treatments for pregnant women.

Overall, Global Fund grants that have completed evaluation of their first phase of implementation after 18 months across all three diseases have reached 94 percent of their programmatic targets. Thus, while malaria grants have shown an initial slow pace of im-

plementation, most have rapidly caught up and even exceeded targets after the initial 18 months. One example is Ethiopia, which was behind at 18 months but exceeded the targets at Month 24.

The initial, relatively slow rate of implementation of malaria grants is most likely the result of weaknesses within the health systems and their capacity to deliver services after so many years of neglect. As the infrastructure and supply bottlenecks have been resolved, rapid scale-up has been observed.

The lesson learned is that what is key to further success in malaria is capacity building and health system strengthening, particularly in African countries, improving management and logistics planning and fully involving civil society, including the private sector, community-based and faith-based organizations.

Although many grants are still at the early stage of implementation, there are some encouraging signs of success. They show that an integrated and coordinated approach to malaria control can achieve quick results in the reduction of mortality. The challenge is to extend coverage and secure long-term sustainability.

I will rush to the end, if you will allow me. So let me just summarize. Mr. Chairman and distinguished members of the committee, over the last 5 years, malaria has been transformed from a largely neglected disease to one which has well-funded international programs showing initial successes and a framework for effective partnerships.

The Global Fund is providing substantial new resources for a comprehensive and balanced approach to malaria prevention, treatment and to health system strengthening. There are encouraging signs that this is having an important impact on the burden of the disease.

This all is happening in a broad context. New funding mechanisms and bilateral support is increasing, and there is improved coordination between donors and with technical partners. Most importantly, we have the political will and commitment for malaria control. Governments of poor nations and rich nations are now more focused on the urgency and prospects for tackling malaria than they were 5 years ago.

Together, these new developments have brought hope that the burden of malaria can be dramatically reduced in a large part of Africa and around the world and could even be eliminated as a public health problem in some areas within the next decade. I thank you very much for your attention.

[The prepared statement of Dr. Lazzari follows:]

PREPARED STATEMENT OF STEFANO LAZZARI, M.D., SENIOR HEALTH ADVISER, THE
GLOBAL FUND TO FIGHT AIDS, TB AND MALARIA

Chairman Payne and Ranking Member Smith, and distinguished members of the House Subcommittee on Africa and Global Health, I would like thank you for convening this hearing on the occasion of Malaria Awareness Day, and for inviting me to testify on behalf of the Global Fund to Fight AIDS, Tuberculosis and Malaria. The timing of this hearing and the topic selected, "Leveraging Progress for Sustainable Advances" is particularly relevant. I am honored to be here to present to you a brief overview of the Global Fund support of malaria control programs, particularly in sub-Saharan Africa, on the progress we have made so far, and on the challenges still ahead of us.

To fully appreciate the progress made recently in the global fight against malaria, it may be useful to consider the status of malaria control at the end of the last century. There was a history of failed malaria initiatives or successful ones for which

donor funding was not sustained. Beginning with the Global Program for Malaria eradication in 1957, there was a ten-year period of strong technical leadership and sufficient funding to eliminate malaria in 24 countries and achieve spectacular reductions in others. However, as resistance to DDT and chloroquine developed, the goal of malaria eradication was abandoned and in 1969 the World Health Organization (WHO) was forced to redirect the global strategy towards the more achievable goal of malaria control. Funding was reduced, national malaria control programs declined and malaria returned. The diminished control efforts were accompanied by lack of surveillance systems and the progressive disappearance of malaria experts and country staff.

The turn of the century has brought about a fundamental change in malaria control. The launch of the Roll Back Malaria (RBM) Partnership in 1998 marked the first attempts to provide a coordinated global approach to fighting malaria but little could be achieved without substantial and sustained funding for national malaria control programs. Through the combined efforts of the malaria community, control of malaria has now finally emerged as a global public health priority and a key requirement for achieving the Millennium Development Goals, particularly the child mortality goal. Since 2000, there has been a revolution in the resources and tools available to fight malaria. These include new drugs, new long-lasting bednets, new rapid diagnostics and a recommitment to indoor residual spraying. Industry is rapidly scaling up manufacturing of malaria commodities, availability of drugs and bednets is increasing, and prices are falling. With the launch of several global initiatives, including the President's Malaria Initiative, the Global Fund, the World Bank Malaria Booster Programme and others, substantial resources have become available in support to national malaria control programmes. But as funding grows and options for interventions expand, there is an increasing realization of the importance of non-financial barriers, such as technical support, procurement capacity and program management. Financial incentives particularly around performance based funding have also provided a focus to deal with these technical issues and flexibly fund the gaps in existing programs.

The Global Fund to fight AIDS, Tuberculosis and Malaria.

Created in 2002, the Global Fund has quickly become a leading force in the fight against AIDS, TB and malaria. In its first five years, it has committed a total of US\$ 7.1 billion to 136 countries around the world, making it the largest international financier of efforts to control TB and malaria and among the first three largest funders of HIV/AIDS programs. Currently, the Global Fund provides two-thirds of all international financing for the fight against the disease.

The United States is by far the Global Fund's largest single donor, although European Union member states together give more than half of the Fund's support. A total of 51 countries are donors to the Global Fund, in addition to a number of private foundations, corporations and individuals. The 2007 US appropriation of US\$724 million is an increase of US \$179 million or 33 percent over the U.S. contribution for 2006. With this new contribution, total U.S. financing for the Global Fund has now reached US\$ 3 billion, which equals 29 percent of all paid-in contributions and firm pledges to date.

The resources available for malaria control have increased substantially with the creation of the Global Fund. To date, the Global Fund has approved a total of US\$ 2.6 billion to support 117 malaria grants in 76 countries worldwide. Of this total, US\$ 1.7 billion has been approved for supporting malaria control efforts in 41 African countries. A total of US\$ 950 million has been disbursed to countries to date. In 2006, the Global Fund provided 64% of all international resources for malaria.

The amount of funds disbursed is largely a function of the time since grant start and grant performance. The Global Fund approach to measuring grants performance includes a rigorous evaluation of achievements against individual country targets, based on what is realistic to achieve in a specific timescale. Progress is monitored on a regular basis and reviewed at the time of Phase 2 renewal, which is usually 18 months after grant signing.

Programme Areas for Global Fund Malaria Grants

Following the principle of national ownership, the priorities, goals and targets for the grants are established by the grantees and the technical approaches are reviewed by the independent Technical Review Panel (TRP). The technical approaches proposed include indoor residual spraying (IRS), insecticide treated nets (ITNs), intermittent preventive treatment for pregnant women (IPTp), and treatment for malaria according to the national treatment guidelines. In Africa, these treatment guidelines usually recommend artemisinin combination treatments (ACTs) as first line therapy. This country-driven process encourages funding not just for commod-

ities, but also for other country priorities, such as strengthening and sustaining delivery systems.

In light of the need to rebuild basic infrastructure and capacities, in the first three funding Rounds, non-commodity costs accounted for up to three-quarters of total funds approved. That is, for every dollar approved for commodities, an additional two to three dollars was requested and approved for other costs such as infrastructure, operations, and grant management. This is not surprising given the long-term neglect of malaria infrastructure in these countries and the needs for rapid scale-up. Currently, around 60% of the resources for malaria grants are destined to capacity building and health system strengthening.

While in the majority of malaria grants the Principal Recipients (PRs) are government institutions and in some cases UN agencies, more than twenty percent have gone to NGOs, foundations and faith-based organizations. And even where governments and UN organizations have received grants as principal recipients, the funds are frequently directed to community-based or faith-based organizations as sub-recipients, recognizing that they are better positioned to deliver community-based services and reach the hard-to-reach populations. Examples include the Churches Health Association of Zambia (CHAZ) that is acting as PR for HIV, TB and malaria grants totaling nearly US\$ 41 million and other FBOs in The Gambia, Ghana, Senegal, Sierra Leone and Tanzania that are acting as sub-recipients of Global Fund malaria grants. Some grantees also support nationwide involvement of the private sector to deliver subsidized services, such as social marketing of antimalarial drugs in Cambodia and Madagascar and for ITNs in Tanzania.

Programmatic Results Against Targets

Combining all the planned country targets, during their lifetime, the current malaria grants will finance the procurement and distribution of 109 million insecticide treated bed nets and deliver 264 million artemisinin combination treatments (ACTs). Results as of December 1st 2006 include the distribution of 18 million bed nets and the delivery of 23 million effective treatments for malaria.

Overall, Global Funds grants that have completed evaluation of their first phase of 18 months of implementation across all three diseases have reached 94 percent of their programmatic targets. Though some malaria grants have shown an initial slow pace of implementation, most have rapidly caught up and even exceeded targets after the initial 18 months. One example is Ethiopia which was behind at 18 months but exceeded the targets by months 24.

The initial relatively slow rate of implementation of malaria grants is most likely the result of weaknesses in the health systems and in their capacity to deliver services after years of neglect. As the infrastructure and supply bottlenecks have resolved, a rapid catch-up has usually been observed. As a result, the total number of malaria treatments and bednets delivered has accelerated over time. Once the infrastructure has been built and start-up issues addressed, it is reasonable to assume that ACTs and LLINs will continue to be delivered at these higher rates.

The lesson is that key to further success in malaria is capacity building and health system strengthening in African countries, through improved management, logistics, planning and the full involvement of civil society, including the private sector and community-based and faith-based organizations.

Grant Approvals in Rounds 5 and 6.

Malaria grants have been approved at a relatively lower rate than HIV and TB grants in recent Rounds. For Rounds 1–4, the approval rates for malaria applications were approximately 40%, equal to or greater than the approval rates for HIV and TB applications. However, for Rounds 5 and 6, the rate of malaria grant approval has fallen to 24% and 31%, somewhat below the rate for HIV grants and substantially lower than the rate for TB grants. The most common reasons stated by the TRP for the non-approval of the Round 6 grants were weak performance on existing grants, failure to adequately respond to prior TRP comments, and unclear links to the national strategy. If lower rates of grant approval reflect relatively poor past performance, then we can anticipate that the recent accelerated performance of malaria grants and the efforts to provide the required technical assistance will be reflected in a higher rate of grant approval in future rounds.

Encouraging Signs of Early Success

Every year, 350–500 million cases of malaria occur worldwide, and over one million people die, most of them young children in sub-Saharan Africa. The Global Fund was created to finance a dramatic turn-around in the world's response to HIV, TB and malaria, providing developing countries with the resources they need to turn the tide against the three diseases. Although many grants are still at the early

stages of implementation, there are some encouraging signs of the success and measurable impact on malaria.

1. *Comprehensive Malaria Programme in Zanzibar*

Zanzibar has received Round 1 and 4 Global Fund grants to fight malaria with a total lifetime budget of USD \$9.6 million for the implementation of a comprehensive program of malaria prevention and treatment. Between 2003 and 2006, US\$5 million was disbursed to the malaria program to deliver ITNs, IRS and ACTs. Zanzibar also benefits from multiple funding channels and involvement of multiple partners, including USAID, Italian Cooperation, WHO, UNDP, and UNICEF. In early 2006 the President's Malaria Initiative also joined the effort.

Scale-up included delivering 300,000 LLINs to women and children, extensive coverage with IRS, improved diagnostic services and funding of NGOs for improved community-based services. As a result, Zanzibar has seen the number of malaria cases and deaths decline by over 80%. There were over 400,000 malaria cases reported in 2004 in Zanzibar; by 2006 it was under 60,000. As a consequence, in 2006, Zanzibar had an excess of ACTs and it is anticipated that future demand (and costs) for ACTs will remain lower.

2. *Indoor Residual Spraying (IRS) in Southern Africa*

The Lubombo Spatial Development Initiative is an ongoing collaborative project of the governments of Mozambique, South Africa and Swaziland. The communities in this high malaria risk area include some of the poorest in the region, with high unemployment levels. The region has a population of approximately four million and has historically been a zone of endemic malaria, particularly on the Mozambique side, which had over 400,000 cases per year. The bordering areas in South Africa and Swaziland are the places in these two countries at highest risk for malaria.

Global Fund malaria grants proposals totaling US\$42.7 million were approved in Rounds 2 and 5. The main activities include IRS with DDT, strengthening surveillance and health system capacities, and providing prompt and effective malaria treatment. More than 90% of households in target zones in Mozambique were protected by IRS with DDT. Beneficiaries included 3.8 million people in South Africa and 140,000 in Swaziland, and more than 90% of households in target zones in Mozambique were protected by IRS.

Recently published data from the intervention areas show a significant reduction in parasite prevalence, measured by cross-sectional hematological surveys, after the implementation of IRS in southern Mozambique. Substantial reductions in notified malaria cases were reported in South Africa (from 41,000 cases in 2000 to less than 2,000 cases in 2005) and in Swaziland (from 4,000 cases in 2000 to 200 cases in 2005). Due to the success in reducing malaria transmission in the target area, the demand for anti-malarial drugs was significantly lower than anticipated, resulting in 100% coverage of health facilities with ACT drugs against an initial target of 50%.

3. *Nationwide ITN delivery in Eritrea*

Eritrea has conducted nationwide distribution of ITNs, supported by \$2.6 million in Round 2 funding. So far, household coverage with at least one ITN has reached 60% with 50% of households having at least two ITNs. Since program start in 2003, there has been a substantial decline in malaria cases and deaths among both children and adults. This program has been approved for an additional \$5.3 million for Phase 2.

Addressing Constraints in Malaria Control

In spite of these early successes, constraints to malaria programmes implementation still exist in many countries. They are being addressed by a combination of in-country actions and improved coordination at international level.

- *In-country Synergies:* Wherever possible, synergies and integration with existing disease control or health care services are being explored. For example, delivery of malaria commodities can be integrated into existing national delivery systems. Using ante-natal clinics to deliver intermittent presumptive therapy (IPT) has taken advantage of the existing high attendance at ante-natal clinics and has not required building new infrastructure. Another example is delivery of ITNs through established community-based programs, such as immunization campaigns. The Global Fund has supported this approach in Niger, Angola, Kenya, Rwanda and Liberia where nationwide campaigns have delivered over 8 million nets through 2006. However, delivery of ACTs is less suited to benefit from such integration. It requires a well functioning national

system of clinical health care, supply chain management, regulatory systems, second-line care, and drug-resistance monitoring. These systems can only be developed over time and with substantial investment.

- *Working with other Technical and Financial Partners:* The Global Fund is a financing mechanism which relies heavily on shared responsibility with recipients and technical partners, as well as industry, NGO and faith-based organizations. The malaria community, under the leadership of the Roll Back Malaria Partnership, is now better organized to respond to requests for technical assistance and capacity building. The partnership has revitalized its working group structure and is coordinating support to countries. A specific effort is being made through the RBM Partnership Harmonization Working Group and other initiatives to support struggling existing grantees and for the preparation of Round 7 applications.

The launch of the United States President's Malaria Initiative in 2005 and investments by several other donor countries further strengthened the global partnership with a promise to significantly increase funding available for malaria control programmes worldwide. The Global Fund welcomes these new investments. Strong collaborative ties have been established and support to countries that are recipient of both GF and PMI grants is being coordinated. Yet, we are still far from filling the estimated annual need of US\$ 3 billion to effectively drive back malaria globally.

- *Voluntary Pooled Procurement:* The Global Fund Secretariat, at the request of the Board, is now exploring options for providing common procurement services to countries. This approach would offer countries an alternative procurement pathway while country systems are being developed. Depending on the level of pooling of orders, such a system might reduce supply bottlenecks through better forecasting, lower prices through volume purchasing and lower transaction costs by centralizing some elements of the supply chain.
- *Addressing health system delivery bottlenecks:* While funding was the largest and most obvious barrier to malaria program scale-up, the availability of funds has now uncovered other rate-limiting steps. Weak health systems, particularly the lack of human resources, poor health infrastructure and weak procurement and supply management systems, are strong impediments to the successful delivery of health services.

The Global Fund recognizes the importance of improving public and private health systems for the successful implementation of its grants and for future sustainability of disease control activities. Over half the support provided by the Global Fund to grantees is already going towards strengthening, directly or indirectly, national health systems. The Global Fund Board is currently discussing a background paper and decision point that will set the framework for future investments by the Global Fund in health system strengthening. A coordinated effort by multiple partners is paramount, as improving health systems requires a major investment on the long-term that cannot be met by a single donor. Several international funding institutions, including the WHO, the World Bank and GAVI, are also reviewing their policies and strategies for health systems strengthening, and are ready to join forces with the GF to tackle this new challenge.

Conclusion

Over the last five years, malaria has been transformed from a largely neglected disease to one which has well-funded national programs showing initial successes and a framework for an effective partnership. This remarkable change has been caused by three related developments: improved tools to prevent and treat malaria; large additional financing available to scale up malaria programs, and a global effort to coordinate and assist countries' efforts to strengthen their malaria control programmes. The Global Fund is providing substantial new resources for a comprehensive and balanced approach to malaria prevention, treatment and systems building. Grant recipients are now able to access funds, identify and finance gaps, reach delivery targets and receive follow-on funding.

Rapid scale-up of malaria interventions is possible and can produce quick results, as shown by a number of early successes across a range of malaria control programs. The implementation of well-designed and funded malaria control programmes can lead to a dramatic reduction in disease burden. Some malaria interventions, such as ITNs and IPTp, can be scaled-up quickly by integrating them into existing delivery systems. Others, such as diagnosis and treatment using ACTs, require building and sustaining specific malaria capacity as well as generic health care and support systems.

As funds increase and options expand, there is an increasing realization that non-financial barriers, such as lack of qualified human resources, limited technical support, weak procurement and distribution systems and program management, are becoming barriers to success.

Adequate financial resources for commodities are an essential but not a sufficient basis for successful malaria programs. Due to years of neglect, the start-up phase involves considerable infrastructure and capacity building. Grantees require time to develop efficient systems to receive and spend funds and successfully implement programs.

While the Global Fund has become the largest single malaria donor, these advances are happening in a broader context. There are at least three new major funding mechanisms and bilateral support is increasing, providing unprecedented levels of new funding. Importantly, there is improved coordination between donors and with technical partners. A revitalized RBM Partnership is expanding and taking on the role of a global coordinating mechanism. Most importantly, we have political will and commitment for malaria control. Governments of poor nations and rich nations are now more focused on the urgency and prospects for tackling malaria than they were five years ago. Together, these new developments have brought hope that the burden of malaria can be dramatically reduced in large parts of Africa, including in the most remote and poor populations, and even eliminated as a public health problem in some areas within the next decade.

Mr. PAYNE. Thank you very much. Dr. Daulaire?

**STATEMENT OF NILS DAULAIRE, M.D., M.P.H., PRESIDENT AND
CEO, GLOBAL HEALTH COUNCIL**

Dr. DAULAIRE. Chairman Payne, thank you so much for convening this session today. Your work on behalf of Africans and your work for social justice, human rights, and human dignity are very deeply respected in our community, and, Congressman Smith, your work in obstetric fistula has improved the lives of hundreds of thousands of women in the developing world, and your passion for child health and survival has had a huge impact. Congresswoman Woolsey, your support of women's health is something that we believe has enormous resonance around the world. So I appreciate all of you being here today.

There is no dignity in an early and needless death, and there is certainly no future in communities cut down by the toll of malaria, so this is an appropriate issue for this subcommittee to be looking at, and speaking on behalf of the Global Health Council and our members working in over 100 countries and on behalf of the broad community of malaria advocates, let me say that we face an opportunity today that, I think, is unlike anything that I have seen in my professional life.

I started my career in 1979 in a remote village in northwest Mali in West Africa, working as a physician there, and I remember, at the very end of the rainy season, seeing an 18-month-old boy, whose name was Moosa, brought into the clinic, suffering from high fever and having convulsions. He had cerebral malaria, one of hundreds of children in that small district afflicted by malaria. Before we could get him treatment, he died right there in the clinic.

I saw literally dozens of women come in, delivering either still births or children of low birth weight because they had been infected with malaria during the time that they were pregnant.

I was fortunate myself. I had a bout of malaria, but I had treatment for it, chloroquine, which works pretty well at that point. And when you looked around and saw what the reasons were for these teeming, needless deaths, it was a bunch of no's. There was no environmental control of the mosquito vector, there was no indoor

spraying, and there were no bed nets. I slept under a bed net, but it was not treated, and every morning my wife and I would go around and actually kill mosquitoes that had feasted all night. This was not a particularly good control mechanism before treated bed nets.

There were no drugs. For the most part, we had drugs. We were fortunate, but there were no drugs available to the people in these communities for treatment of malaria when they had fever and illness, and, worst of all, there was no training and no system in place to get malaria control underway.

In the past three decades, this lack of attention has led to 30 million unnecessary deaths, and we failed the children and the mothers of Africa, as we failed the children and mothers of the Terai in Southern Nepal, in the Mekong Basin of Southeast Asia, and in the Amazon Basin of South America.

So having a Malaria Awareness Day is terrific, but I think it is time for a malaria action day, and I think that that is, in fact, where the President's Malaria Initiative and all of these activities are really leading us to.

Today, we can no longer blame the confusion and uncertainty, from the scientific and programmatic standpoint, that belabored us over the past 30 years, and, with your help, we will no longer be able to blame a lack of resources for an inability to have an impact.

For the malaria parasite, every day is Malaria Day. It kills every hour, every day, as you well know, and it is a very complex organism. It is a shape shifter. I have studied it in medical school, and it changes its shape in different parts of its life cycle. It is in the mosquito, it is in the human being, and it is not a simple parasite to get rid of or to kill or to eliminate or to eradicate, Congressman Smith.

But what it teaches us is that if you are dealing with a complex life cycle in a complex organism, you need a complex response. That is not a bad thing. We are told, keep it simple, but, in fact, complexity within bounds is manageable.

What do we need to do? We have heard it from Admiral Ziemer, and we have heard it from my colleague, Dr. Lazzari. We need a comprehensive approach of environmental control, indoor residual spraying, insecticide-treated bed nets, treatment with ACTs, the drugs that are currently effective—"currently," I would note—against malaria, insecticides, the intermittent treatment of pregnancy, and, we hope, before too much longer, vaccines.

A multifaceted strategy, and it needs a multifaceted approach, with many moving parts, which means it has to have partnerships.

We used to think that governments could do it or the NIH could do it or CDC could do it. In fact, what we need is governments and international agencies and private companies and community-based NGOs and faith-based NGOs and a wide range of institutions on the ground and working internationally, and we also need, Chairman Payne, we need civil society at the table every step of the way as partners and also as prods, as part of this community of advocates.

Roll Back Malaria, which started in 1998, began this process, but, today, we see a community of advocates that is far more active than we have ever seen before.

I would like to enter into the record this statement from the malaria community, which calls on the United States and governments around the world to take action, to do the things that are required for continued leadership, for effective partnership, and for sustained funding on behalf of malaria control.

These are comprehensive approaches. We have made some enormous strides over the last couple of years. I am very, very pleased with what I have seen from the PMI. I think their comprehensive approach has been good. I think that they have avoided robbing Peter to pay Paul. We recognize that a child who survives malaria still is at risk for pneumonia or diarrhea or vaccine-preventable diseases.

All of these things need to be built together, but the PMI is taking very solid steps to reinforce rather than to compete with these basic maternal and child health programs, and we need clear metrics, which they have also established. They are looking at a 50-percent reduction, and we applaud that. So we would certainly support full funding of the President's request.

Finally, the U.S. will not defeat malaria alone. This is not a matter of the United States doing something; it is a matter of the world community, other donors, such as the U.K. the Global Fund, which is playing an increasingly important role, and, most importantly, national governments that have to step up to the plate and really do something here—this is bigger than any one organization—together. And then we have to sustain this, not just for the next year or for the next term in Congress, or for the next administration. We have to sustain this for the next generation so that, 30 years from now, we will not be looking back, as I have now, and said, We could have done something.

[The prepared statement of Mr. Daulaire follows:]

PREPARED STATEMENT OF NILS DAULAIRE, M.D., M.P.H., PRESIDENT AND CEO,
GLOBAL HEALTH COUNCIL

Chairman Payne, Representative Smith and distinguished members of the Subcommittee, thank you for inviting me to testify before you today on "Africa Malaria Day: Leveraging Progress, Highlighting Opportunities." My name is Dr. Nils Daulaire. I am the President and CEO of the Global Health Council, the world's largest membership alliance of health professionals and service organizations dedicated to saving lives and improving the health of the world's poorest two billion citizens.

The Global Health Council convenes and facilitates constructive dialogue among U.S. and international global health stakeholders on topics ranging from HIV/AIDS to child health to neglected tropical diseases. Working in partnership with our diverse members, the Council also advocates for sound policies and effective programs that will lead to better and more equitable health around the world. I speak before you representing not only the Council and our membership, but as an active partner within the broader community committed to the global effort to reduce malaria's burden.

Before I begin, Chairman Payne, let me thank you for your long-standing commitment to Africa and global health. You have a notable history of supporting global health priorities and keeping the needs of developing countries as a part of our national dialogue, and your commitment to social justice is deservedly famous among those on the front lines delivering essential health care services to the world's poor. Representative Smith, your efforts to address the modern tragedy of obstetric fistula have improved the quality of life of hundreds of thousands of women and your decades of work on behalf of children's health is much appreciated. This Committee's bipartisan collaboration reinforces the global health community's conviction that saving lives knows no party lines. On behalf of the Council's 350 member organizations working in over 100 countries across the globe and the millions whose lives are improved by U.S. Government investments, we thank you.

Today—April 25—is Africa Malaria Day. It is also the United States’ first observation of *Malaria Awareness Day*, as declared by President and Mrs. Bush at the White House Summit on Malaria in December 2006. This May, the 192 member states of the World Health Organization will convene in Geneva and vote on a resolution to establish *Malaria Day*, an international observation that acknowledges malaria as a continuing global challenge, not just one restricted to Africa. These observances, atop countless global declarations and commitments in recent years, confirm that malaria stands at center stage as both a global health threat and a global health opportunity.

But I do not need to remind you that this is not just about a single day. Tomorrow, another three thousand children will die from malaria, and again the day after that, and the day after that. For the parasite that causes this deadly disease, every day is malaria day.

PROGRESS

As a public health physician who has worked for more than 30 years to improve health care in the developing world, I take great joy in the resurgent attention, resources and progress in fighting malaria over this past decade. After too many years of sterile debate, there is growing consensus about what works for prevention, diagnosis and treatment of malaria. Resources to fight malaria, from governments such as the United States and from major foundations such as the Bill and Melinda Gates Foundation, have grown considerably. Public-private partnerships have emerged, and now corporations and multilateral institutions are working together to develop new technologies and improve prevention tools and treatments. Afflicted countries are addressing social, political and economic barriers to essential commodities and interventions. The world has recognized the toll that malaria takes on people in poor countries and is poised to respond.

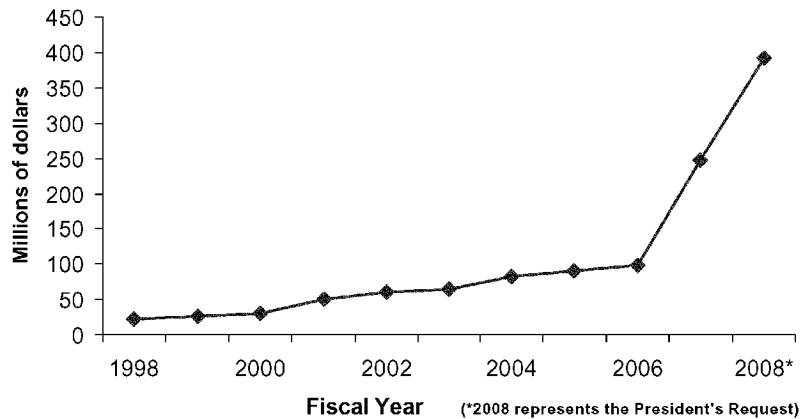
A NEW MALARIA ENVIRONMENT

I will remind you that this is not the first time that the world has attempted to conquer malaria. In 1955, the World Health Assembly adopted the goal of malaria eradication—something that seemed quite possible because it had been achieved in the United States just four years earlier. However, controversies over technical interventions, over-emphasis on a single-minded approach that aimed to spray our way to success, and a lack of sustained investments left much of the developing world without the strategies, resources and supplies truly needed to protect people. Efforts slipped, and malaria came roaring back, often in deadlier, more resistant forms. As a result, tens of millions—mostly young children and pregnant women in Africa—perished needlessly.

Fast forward through 20 years of relative political indifference and inadequate resources, and we come to the current period in which the malaria environment has evolved in ways previously unimagined. Allow me to highlight just a few of those dramatic changes.

1. *Knowledge Base:* With more than 23 malaria vaccine candidates in the technology pipeline, a new single-dose combination therapy treatment recently announced, renewed evidence of the positive impact of indoor residual spraying and the development of longer-lasting insecticide-impregnated bed net technology, the arsenal of malaria prevention and treatment options is growing stronger by the day.
2. *Funding:* In fiscal year (FY) 1998, U.S. Government bilateral spending on malaria was only \$39 million, mostly through the US Agency for International Development (USAID) and the Centers for Disease Control and Prevention (CDC). Additional resources were dedicated at the agency level, mostly to research, at the National Institutes for Health and the Department of Defense. However, in 2002, the U.S. made its first contribution of \$300 million to the Global Fund to Fight AIDS, Tuberculosis, and Malaria—the innovative multilateral financing mechanism to support interventions targeting the three highest-profile global infectious diseases. Since then, U.S. global malaria spending has steadily risen, culminating with the 2005 announcement of the President’s Malaria Initiative (PMI), a five-year, \$1.2 billion commitment targeting 85% coverage and a two-thirds mortality reduction in 15 African countries. In just 10 years, U.S. Government spending on bilateral malaria programs alone has grown nearly ten-fold. For this, our community applauds the United States’ generosity and global leadership.

U.S. Bilateral Malaria Funding, 1998-2008



3. *Programs & Results:* Since 2003, three major malaria programs have emerged providing more than \$1 billion for malaria programming in the hardest hit countries. The Global Fund to Fight AIDS, TB and Malaria is the single largest source of global malaria funding, providing two-thirds of all international financing. The Fund has approved \$2.6 billion in grants for 117 malaria programs over five years in 85 countries and \$833 million has been disbursed so far. The World Bank Malaria Booster Program will commit approximately \$500 million in IDA allocations over three years to support countries ready to improve and expand their malaria control efforts. The President's Malaria Initiative (PMI) has disbursed \$165 million for malaria control programs in seven of the 15 priority countries and, as you have just heard from Admiral Ziemer, program rollout has been swift and effective, with positive program results for initial targets.

Investments are on track to save lives. Global Fund malaria grants have distributed 18 million insecticide-treated bed nets to protect families from malaria and reached 5.3 million patients with artemisinin-based combination therapies (ACTs). In just 18 months of operation, the PMI has purchased over 1 million ACT treatments, protected over 3 million people through spraying campaigns and distributed over 1 million bed nets. These programs are being integrated with other health programs on the ground, strengthening health systems and reaching those in need.

SIMPLE VERSUS COMPREHENSIVE APPROACHES

Malaria is a complex organism that goes through many shape-shifting forms in its complex life cycle as it travels from human to mosquito and back to human. Simple approaches aimed at just one aspect of this life cycle have routinely failed, as the DDT spraying of the 50s and 60s showed. This is why a comprehensive approach has finally become the standard that experts and implementers have agreed upon. This approach addresses both the mosquito vector, through environmental control, indoor residual spraying, insecticide-impregnated bed-nets and even new biotechnology-based efforts, as well as the human stages of the malaria life-cycle, through early case detection and treatment with effective drugs, intermittent prophylactic treatment of pregnant women, and efforts aimed at vaccines that will block malaria at various stages of its life-cycle within the human body. We have finally come to face facts, and no longer do we take seriously any approaches that say we can stop malaria with just one intervention.

PARTNERSHIP

A comprehensive approach requires addressing malaria from many angles, and much of the progress of the last decade can be credited to a specific strategy—*Partnership*. This includes every combination of collaboration between donor governments, developing country governments, private industry, local communities, non-

governmental organizations, philanthropic organizations, and individuals. Partnerships have crossed sectors and disciplines focusing on every aspect of malaria from research and product development to program implementation and evaluation. Partnerships between international non-governmental organizations and developing country governments and between local civil society organizations and multinational corporations, and the traditional partnerships between national governments are all proving indispensable to the global effort to stop malaria. Collaborations are capitalizing on partners' respective advantages and accelerating progress at a remarkable pace.

Because the other speakers will be elaborating on other kinds of partnerships, I will focus briefly on the collective action taken by malaria advocates—both globally and domestically—and their essential role in sustainable progress in this field. A decade ago, it would have been difficult to identify more than a handful of full-time malaria advocates and their efforts certainly were not coordinated in any formal manner. Stakeholders recognized that progress against a growing burden was stunted without a single, strong voice for malaria. Globally, partners including the World Health Organization, UNICEF, the World Bank and the UN Foundation launched the Roll Back Malaria (RBM) Partnership in 1998. Since that time, the Partnership has served as a hub for global advocates, disseminating otherwise isolated intelligence and coordinating partner activities. The Global Health Council is honored to have been invited to serve as the co-chair of the newly created advocacy working group of the Partnership, ensuring that advocates are aware of the broader political climate while providing a forum where local realities can guide global policy discussions.

National malaria advocacy networks have emerged in France, Belgium, the UK, Cameroon, Mozambique, Ghana, Mali, Kenya and Ethiopia. In the United States, the Global Health Council convenes the Malaria Roundtable, a space for US-based malaria advocates to gather and exchange information and opportunities to advance the malaria agenda. Through the Roundtable, advocates have developed a common platform and promoted full funding for U.S. malaria investments as well as called for transparency, accountability and results from the programs they support. Advocates also coordinate with the broader global health and development community, recognizing that in many ways, we share the same overarching agenda.

Mr. Chairman, I bring your attention to the 2007 malaria community statement that I ask be submitted for the record. The statement is just one of the tangible demonstrations of partnerships among diverse organizations in this area of global health. The statement is signed by 45 organizations declaring a commitment to sustainable progress against malaria. To put the growth of the community in perspective, I point out that the 2005 community statement included only nine signatures representing groups that were most active at that time.

The Roll Back Malaria Partnership and national and local advocacy networks allow those with real programmatic and technical expertise in malaria control to establish a presence in policy circles and among the increasingly aware public. This sense of community demonstrates that we value progress over protected agendas; increased capacity over individual credit; and saving lives over stagnant debates. Today's partnerships demonstrate that our commitment to reducing the global burden of malaria is stronger than any single segment of the agenda.

CURRENT PRIORITIES

Mr. Chairman, on behalf of the Global Health Council and the broad U.S. community of organizations working against malaria, I invite you to consider our future agenda and Congress' role in working in partnership with the community to sustain the progress that has begun. The current agenda of U.S. malaria partners includes the following:

- *Funding:* U.S. malaria partners support robust U.S. investments in global malaria efforts. This is defined as a foreign operations appropriation of \$440 million in fiscal year (FY) 2008, including full-funding for the President's Malaria Initiative as well as a \$1.3 billion contribution to the Global Fund to Fight AIDS, TB and Malaria, of which an estimated 27%, or \$351 million, would go to malaria grants. This funding should be complemented by resources administered by the Department of Health and Human Services, primarily through the Centers for Disease Control and Prevention (CDC) as well as agency-level allocations for research at the National Institutes for Health and through the Department of Defense.
- *Technical Approach:* U.S. malaria partners support interventions working across the spectrum of attack points that I have already outlined, and that are most appropriate for the local environment, health system and culture. It also

includes complementing investments in commodities with parallel investments in technical assistance and non-technical interventions. Experts from the U.S. Agency for International Development (USAID), CDC and the World Health Organization (WHO) play critical roles in these technical activities and help create stronger health infrastructures in developing countries by sharing their knowledge. We ask that Congress continue to support technical assistance programs.

- *Comprehensive Approach: Malaria partners promote the continuum of malaria programming. While we massively scale up the deployment of the tools we have today against malaria, we must also invest in new and better tools for tomorrow. The Bill and Melinda Gates Foundation has been a vital contributor to this effort, but the U.S. Government must also be fully engaged. Research and development (R&D) of easy-to-use diagnostics, better insecticides, new medicines and an effective vaccine are all critical components in a comprehensive battle against this persistent scourge. The comprehensive approach is also defined by the engagement of all sectors—public and private, social and business, health and non-health—affected by malaria.*
- *Sound Program Architecture: Malaria partners promote efficient and effective bilateral and multilateral programs. This includes a commitment to strong program leadership, transparent processes and accountability. In addition, service delivery practices such as supply chain management is but one example of “best practices” we cannot afford to ignore. We all recognize, and Admiral Ziemer has highlighted, that these malaria control programs must be developed and strengthened within the context of the national and local health care systems on which they will always rely, and which they should help to reinforce. We hope that Congress will partner with us in order to put our public investments to the best use.*
- *Results-Driven: U.S. malaria partners demand results from the programs they support. We ask for Congress’ help in making sure that the results of our work together is measured in real health outcomes—ultimately lives saved—rather than outputs and process indicators.*
- *Harmonization: Keeping with the theme of partnership, malaria partners support the principle of seamless coordination, or at least complementary approaches, among the host of initiatives and funding streams present in communities and countries. Conflicting program guidance and deliverables and other bureaucratic strings attached to funding take time and attention away from the important work of program delivery. And, of course, these programs should ultimately be designed and delivered by national governments and local implementers who know best what works for them. We need Congress to help ensure that there is harmonization among U.S.-funded programs as well as play a role in setting standards for coordinated reporting of international development assistance.*

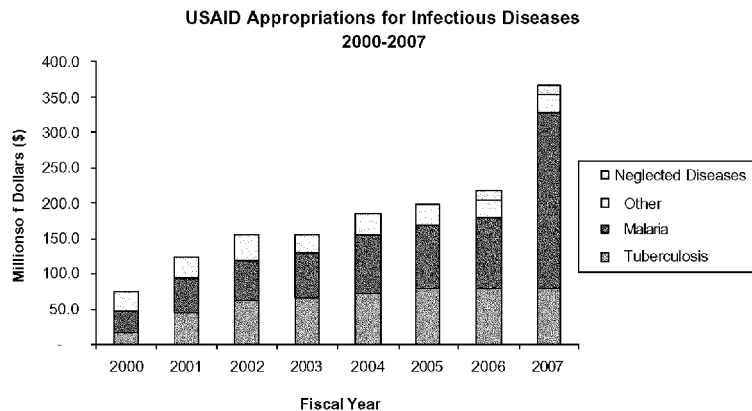
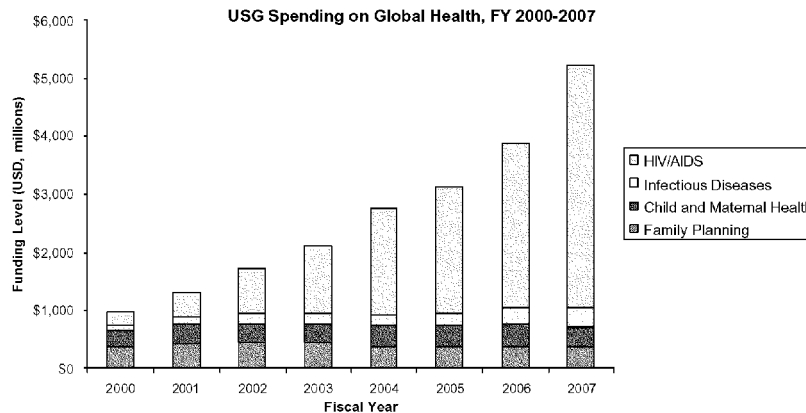
These are principles and priorities frequently stated and commonly agreed upon. But, they must translate from rhetoric to reality. This requires a commitment carried beyond Africa Malaria Day, Malaria Awareness Day or any other single observance. Will the U.S. Congress provide the support necessary to ensure that, over time, the world will not again give up the fight against malaria and allow this scourge to continue to claim a million lives every year? The malaria civil society community is your eager partner in such a commitment.

CONTINGENCIES FOR FUTURE SUCCESS

As we celebrate the partnership for malaria over recent years, I remind you of two important factors that will determine how long this positive trend will last.

First, we must put malaria’s current favorable status in context of the broader global health and development agenda. As I mentioned, bilateral malaria funding has grown nearly ten-fold in just over a decade. By doing so, it has joined global AIDS as a U.S. and international priority: just these two diseases together account for about \$5 billion of the total \$6.8 billion that the U.S. currently invests in global health. We applaud these investments as necessary; however, by themselves they are not sufficient. While advocacy, planning and policy at the global level tend to be issue-specific, these threats to good health and economic and social stability do not occur in isolation. In reality, the same women who receive preventive malaria therapy during pregnancy may die during child birth because of failures to invest in other core maternal and child health programs. The same communities where children now sleep under bed nets made available through the PMI, the Global Fund and a host of country-led campaigns to guard against malaria are the same

children at high risk of dying from pneumonia, diarrhea or a lack of immunizations, leading causes of child mortality that are addressed in separate programs and funded by separate streams and donors.



Source: USAID Infectious Disease Division, 2007

We must not pit global health issues against each other. To do so is shortsighted and costs lives. The challenge before those of us who understand the fundamental importance of addressing the full set of core global health issues is how best to support malaria control efforts without taking resources from other equally vital core health accounts; we cannot rob Peter to pay Paul.

Rather, we must illustrate the fact that our best intentions and investments may be undermined by overly narrow vertical approaches, rather approaches that are comprehensive and complementary. Our aim must be to use these efforts to help build and maintain robust national health systems capable of delivering a range of essential programs, and lasting well beyond the attention span of international donors. After years of contradictory and isolated approaches to malaria treatment and prevention, advocates and implementers have learned that success will not be sustained if individuals have only one aspect of their health addressed adequately while neglecting others. Beyond the scope of this hearing, I encourage the Subcommittee to explore ways to address this issue through a comprehensive, sustainable strategy. And I would note again that the efforts led by Admiral Ziemer under the Presidential Malaria Initiative have been laudable in their attention to these important linkages.

The second consideration that I submit to the Committee—and the malaria community—is that we not simply bask in this moment of political will and resource growth, without considering the future beyond the next Global Fund grant round

or beyond the PMI's initial five years of support. As equally responsible partners, we must ask: What will the U.S. Government's malaria program look like post-PMI, or in its next generation? Now that we have increased global resources, what other challenges need to be addressed? Are these initial results sustainable? Are all the people in need able to access proven interventions?

What we cannot afford is to repeat history and give up on malaria before the job is completed. We saw the effect of this kind of short-sighted response when we withdrew global investments in malaria control in the 1970s. Instead, if the U.S. Government sees fit to commit to stopping malaria worldwide, in full partnership with other developed country leaders, affected communities and the advocacy community, all partners will be able to elevate strategies for sustainability.

CONCLUSION

On Africa Malaria Day 2007 and the first US Malaria Awareness Day, much remains to be done and complacency on any part of the malaria agenda threatens progress to date. However, we should be encouraged by the opportunity before us. On this day, I have just come from the White House where President and Mrs. Bush have reiterated their commitment; you have convened this important congressional hearing to review the opportunities for sustainable progress; there are 45 (mostly) U.S. organizations mobilized around a single statement of support; public awareness is growing, and as we will see this evening, even American Idol is on board; political will is strong; and we are moving toward results. We are achieving all of this in the only way possible—through partnership, leadership and with a collective eye on the future.

Mr. Chairman, I thank you again for your leadership on Africa where the brunt of the malaria burden is experienced, and on addressing the host of global health issues that stunt the development of people and nations around the world. The Global Health Council and the malaria community look forward to working with you to continue, accelerate and sustain progress against malaria and save millions of lives.

Thank you

Mr. PAYNE. At this point, we have about 1 minute left, so we will have to adjourn at this time. We will recess, and we will pick right up where you left off. It will take us 15 minutes or so, perhaps 20.

Dr. DAULAIRE. I am complete.

[Whereupon, at 4 o'clock p.m., a recess was taken.]

Mr. PAYNE. The hearing will be resumed, and our next witness will be Dr. Adel Chaouch. You say it.

Mr. CHAOUCH. That is the correct pronunciation. Thank you very much.

Mr. PAYNE. Well, thank you.

Mr. CHAOUCH. I think my colleague has a couple of more comments.

Mr. PAYNE. Yes. If you want to conclude, absolutely.

Dr. DAULAIRE. Just one short one. First, Mr. Chairman, I would ask that my written testimony be entered into the record as submitted, and I would like to end with—you asked a question of Admiral Ziemer about how this relates to poverty reduction, and I would just like to end with an Arab proverb that says, "Those who have health have hope, and those who have hope have everything." I think this is fundamental to what we are doing. Thank you.

Mr. PAYNE. Thank you very much.

Dr. DAULAIRE. Thank you.

STATEMENT OF ADEL CHAOUCH, PH.D., P.E., DIRECTOR OF CORPORATE SOCIAL RESPONSIBILITY, MARATHON OIL COMPANY

Mr. CHAOUCH. Mr. Chairman, thank you for inviting me to attend before this hearing. It is an honor and a pleasure to be here. It is also an honor to be among the very distinguished panelists.

With your permission, I would like to request that the written testimony be filed, and I would like to move ahead with the comments on the private sector involvement and talk about successful partnerships and highlight one specific case.

Mr. PAYNE. Without objection.

Mr. CHAOUCH. Thank you. I am going to skip the section on the burden of malaria on Africa, on the human toll. I think a lot of this has been discussed earlier. I want to move ahead and talk about the additional toll that malaria has on business.

Malaria is very harsh on businesses, too. Through increasing costs, decreasing productivity, and immediately impacting the recruitment of experts, it also impacts the ability of companies to recruit workers from local communities, whose education have been disrupted by the disease that is continuing the cycle of poverty.

Companies with operations in Africa have recognized the burden malaria has imposed on development through significant increases in the cost of doing business, as well as the burden on the communities. The involvement of the private sector in supporting health initiatives has long been established in Africa and elsewhere, and the fight against malaria is no exception.

We have seen, in the past years, an increased commitment from the private sector to support malaria intervention in Africa, mostly in the form of workplace programs, most recently, the private sector's support of programs that have been targeting malaria intervention initiatives benefiting local communities, with an increased focus on strategic partnerships to ensure success.

I would like to present an example of a public/private partnership, the Bioko Island Malaria Control Project—I will refer to it later on as “BIMCP”—which has not only helped save the lives of thousands of children in Equatorial Guinea but also became a model on how to effectively eliminate the scourge of this truly preventable and treatable disease.

When Marathon first entered Equatorial Guinea in 2002 it quickly identified malaria as the most significant health threat facing our employees and the local communities on Bioko Island. Malaria on the island was endemic, with one of the highest transmission rates in sub-Saharan Africa. It was clear that the elimination of malaria on the island would significantly reduce both the health and economic burden of this disease and make a significant difference in the lives of the citizens of this island.

Marathon, with its business partners, Noble Energy and the Government of Equatorial Guinea, formed a unique partnership that was comprised of the leading health specialists from Medical Care Development International (MCDI), One World Development Group, the Medical Research Council of South Africa, and the Harvard School of Public Health.

The partnership, led by MCDI, designed the project, which is a 5-year, \$12.8-million malaria program aimed at interrupting the cycle of malaria transmission on Bioko Island. The project had a focus on the high-risk population, which is children under the age of five and pregnant women. It had five key features.

The principal intervention is vector control through indoor residual spraying (IRS), which was mentioned earlier, using an insecticide which is synthetic.

In 2004, IRS was conducted on all vertical surfaces of more than 96,000 structures on this island. The project shifted later on to two spraying campaigns per year to overcome insecticide resistance that was discovered in 2004 through the extensive research and surveillance component of this project. To date, we have completed five spraying campaigns, and the program has already started a sixth one.

The second intervention is improved case management. Health agents have been trained to diagnose malaria using new protocols to treat patients using a regimen that relies on ACT. Over 25,000 packets of free drugs have been distributed so far.

The third component of the project is surveillance and evaluation. Using window traps with 18 sentinel sites around the island, this project was able to monitor effectiveness of the project. The surveillance sites would also provide the basis for a crucial, early-warning system to help avoid the resurgence of malaria in the future.

The project also incorporates the use of advanced technology. Surveillance sites have been established through the use of satellite imagery that was used to map the island. The project also teamed up with the Centers for Disease Control (CDC) to introduce new technology to streamline data collection analysis using handheld devices.

A critical component of this project is communication, information, education for the community. Because the project is very intrusive, which requires the entry of every single home on the island, communication materials were developed to explain the benefits of this project, and focus groups were used to make sure that the material was relevant to the various communities of the island.

The project has an agreement with the government that calls for the progressive transfer of responsibility over 5 years, and all activities were coordinated with the Ministry of Health. So far, in excess of 90 percent of the project staff are all nationals from Equatorial Guinea.

After 2 years of implementation, the project has achieved life-saving results, with a 90-percent reduction in malaria transmission, and the project has also resulted in a 44-percent reduction in the prevalence of malaria in children under the age of five.

For a population of a quarter of a million on the island, they have been experiencing an average of one episode of malaria per year per person. The project was able to avert 150,000 cases in the first year of implementation alone.

At the same time, the project brought economic benefits to the lower 40 percent earners in the population through a net savings of 6 percent of their annual revenues that they would have otherwise spent on treating this illness. For every dollar the project has invested, the return to the community, in terms of averted cases, improved productivity, and reduced absenteeism, was \$4.00. So the benefit-to-cost ratio was 4 to 1.

In addition, Marathon was instrumental in supporting successful application of Equatorial Guinea to the Global Fund to secure a multiyear, \$26 million program expansion of the project to the mainland. The Marathon Foundation provided an additional \$1 million grant to support this expansion. The partnership, through

the teaming of resources from Marathon and the Global Fund, would permit the replication of the island project intervention strategy on the mainland to expand coverage for the entire population of this Central Africa country.

Based on the success of this intervention and other antimalarial programs in Africa, companies recognize the value of leveraging their efforts to work together and coordinate with national governments, as well as large donor organizations, such as the Global Fund, the World Bank Booster program, as well as the PMI, to maximize the benefits for local communities.

As mentioned earlier, companies have strong technological and managerial skills that can significantly improve the efficacy of malaria intervention programs in countries where they operate.

To conclude, the private sector is committed to active participation in the long-term solutions to the burden that malaria has imposed on Africa. There is a strong business case for such participation due to the growing economic importance of Africa, including the energy sector. Through its ongoing actions, the private sector is a genuine partner with the African governments, NGOs, and other stakeholders in the fight against malaria. Thank you, Mr. Chairman.

[The prepared statement of Mr. Chaouch follows:]

PREPARED STATEMENT OF ADEL CHAOUCH, PH.D., P.E., DIRECTOR OF CORPORATE SOCIAL RESPONSIBILITY, MARATHON OIL COMPANY

INTRODUCTION

Thank you Chairman Lantos and members of the Subcommittee for inviting me to testify at today's hearing. My name is Adel Chaouch, and I am the Director of Corporate Social Responsibility for Marathon Oil Company, which is based in Houston, TX. Marathon Oil Corporation (NYSE: MRO) is an integrated international energy company engaged in exploration and production; integrated gas; and refining, marketing and transportation operations. Marathon has principal operations in the United States, Angola, Canada, Equatorial Guinea, Gabon, Indonesia, Ireland, Libya, Norway and the United Kingdom. Marathon is the fourth largest United States-based oil company and the fifth largest refiner in the United States. Marathon embraces corporate social responsibility and is committed to playing a positive role as a responsible corporate citizen in the countries and communities where we do business, both domestically and internationally. This is particularly true in the country of Equatorial Guinea in Sub-Saharan Africa where malaria is a part of life—and death.

In Sub-Saharan Africa, someone dies of malaria every 30 seconds. That equates to a million deaths a year, and 90 percent of the worldwide total. To make matters worse, 90 percent of these wasted lives are children under five years of age. Moreover, malaria is a contributing factor in countless thousands of additional deaths through synergy with other infections and illnesses, such as TB and HIV/AIDS. In Africa, malaria accounts for 25–35 percent of all outpatient visits, 20–45 percent of hospital admissions and 15–35 percent of hospital deaths. This imposes a great burden on already fragile health-care systems of affected African States.

By some accounts, an estimated \$12 billion in economic losses each year in Africa are attributed to malaria, wiping out 1.3 percent from the annual gross domestic product of Sub-Saharan countries. An African family may spend up to 25 percent of income on malaria prevention and control. For those least able to afford treatment, the cost of malaria treatment is a major barrier to poverty reduction.

In addition to the human burden, malaria is harsh on businesses too, creating an adverse investment climate in several critical ways:

- *Costs:* protecting employees from the disease, including medicating and evacuating personnel, pushes up healthcare costs.
- *Productivity:* productivity plummets, directly through local African employees who become ill or die, or indirectly through leave of absence as employees care for family members who become sick or disabled by the disease.

- *Recruitment*: skilled expatriates are reluctant to work in Africa if they are unable to bring their young children, or have to endure long separations from their families.
- *Integration of national employees*: the ability to integrate nationals into the private sector is hampered by disruptions to personal and community educational development, impacting future generations.
- *Economic growth and sustainability*: the continent's inability to attract key growth sectors such as manufacturing and tourism will limit economic development, and undermine stabilization efforts.

Companies with operations in Africa have recognized the burden that malaria has imposed on development through significant increases in the cost of doing business as well as the burden on the communities. The involvement of the private sector in supporting health initiatives has long been established in Africa and elsewhere, and the fight against malaria is no exception. We have seen in past years an increased commitment from the private sector to support malaria interventions in Africa in the form of workplace programs. More recently, private sector malaria intervention programs have been targeting initiatives benefiting local communities, with an increased focus on strategic partnerships to ensure success. The private sector has adopted a wide assortment of partnership models in support of their health initiatives. They vary from direct grants, partnering with local government or/and with implementing NGOs just to name a few. NGOs and government have typically been the organizations on the ground in the least developed countries with the credibility and the local knowledge to affect and implement programs. However, private business brings unique technical and managerial skills, financial support, and access to efficient supply chain processes. These attributes are necessary to achieve project success over the long-term.

I would like to present an example of one such public private partnership—the Bioko Island Malaria Control Project (BIMCP)—which has not only helped save the lives of thousands of Equatorial Guinea's children, but has also become a model project on how to effectively eliminate the scourge of malaria.

BIOKO ISLAND MALARIA CONTROL PROGRAM

When Marathon first entered Equatorial Guinea in 2002, it quickly identified malaria as the most significant health threat facing its employees and the local communities on Bioko Island. Malaria on Bioko Island was endemic, with one of the highest transmission rates in Sub-Saharan Africa. It was also the cause of approximately 40 percent of all mortalities and a major contributor to a 17 percent mortality rate for children under the age of 5 years (20 times higher than the childhood rate in the US). It was clear that the elimination or dramatic reduction in malaria transmission on Bioko Island would significantly reduce both the health and economic burden of this disease and make a significant difference to the lives of Equatoguineans.

Marathon's business model for our natural gas operations in EG was to create a regional gas processing hub with a business presence for at least 20 years. Having a productive workforce fully integrated into a healthy community is paramount to the success of this business model. A commitment was made at the highest executive level within Marathon to implement a malaria intervention program that would benefit the Equatorial Guinea communities on Bioko Island as well as our own workforce. With our long term presence in EG, we wanted to leave a legacy as a good corporate citizen and that would also meet our business needs.

The Project Partnership

Marathon and its business partners, Noble Energy and GEPetrol (the national oil company of Equatorial Guinea) as well as SONAGAS (the national gas company), teamed up with the Government of Equatorial Guinea and formed an implementation team comprised of leading health specialists from Medical Care Development International (MCDI), One World Development Group, the Medical Research Council of South Africa and the Harvard School of Public Health. The team, led by MCDI, designed the BIMCP, a five-year, \$12.8 million malaria transmission reduction project aimed at interrupting and then drastically reducing the transmission of malaria on Bioko Island. The main focus is those at highest risk, especially children under five years of age and pregnant women.

BIMCP employs five key features: vector control; improved case management; surveillance and evaluation research; information education and communication; and integration and capacity building. The BIMCP was rolled out in October of 2003, starting with baseline entomological and health surveys; the first spraying campaign began in February 2004.

BIMCP Vector Control

The principal intervention of the BIMCP is vector control through Indoor Residual Spraying (IRS), which breaks the cycle of infected mosquitoes continuing to bite and infect new victims. The spraying of interior walls with insecticides has been extremely effective in reducing the risk of malaria.

In 2004, indoor residential spraying was conducted on all vertical surfaces of more than 96,000 structures on Bioko Island. The project shifted to two spraying campaigns per year in 2005 to overcome resistance discovered in late 2004, thanks to the extensive surveillance and research component of the project. In addition to increasing the indoor spray frequency, the project switched to a different insecticide, namely Bendiocarb, in response to the identified resistance. The IRS component of the project is now averaging well over 100,000 structures per spraying cycle. To date, the project has completed five spraying campaigns; the program has recently started its sixth round of spraying.

BIMCP Case Management

The second intervention of the BIMCP is improved case management. Medical staffs have been trained to diagnose malaria using new protocols and treat patients using a regimen that relies on Artemisinin-based combination drug therapies. This new approach is designed to overcome the drug resistance to long-standing treatments using a single drug, such as chloroquine.

Marathon and its partners are underwriting medication costs for identified high-risk sectors of the population so they have access to the best treatment available, without economic constraints limiting care. Over 25,000 packets of free drugs have been distributed so far.

BIMCP Surveillance and Evaluation

The third component of the program is surveillance and evaluation. Window traps located in 18 sentinel sites around the island enable the BIMCP to monitor effectiveness in terms of reduction in mosquito numbers and their level of infectivity. These same surveillance sites will provide the basis for a crucial early warning system to help avoid a resurgence of malaria in the future.

Annual surveys of the presence of malaria-causing parasites among children and pregnant women enable the BIMCP to monitor effectiveness in the target population. These surveys will enable the BIMCP to evaluate the impact of the project on under-five mortality, the incidence of malaria and demand for treatment, and the welfare of the Bioko Island population as the economic burden of paying for malaria treatment reduces.

The project incorporates use of advanced technology, deploying this technology through training and capacity building within the local teams. Surveillance stations have been established in part through satellite imagery used to map the island. The project has teamed up with the Center for Disease Control (CDC) to introduce new technology. Now, technicians enter data into handheld PDAs to quickly send digitized data to a research center that can analyze the information and use this to make adjustments more rapidly. PDAs were also used to capture survey data and map GPS coordinates for monitoring stations.

BIMCP Information, Education and Communication

A critical support feature of the BIMCP is a community information, education and communication program. Because BIMCP success requires every home on Bioko Island to be sprayed with insecticide, communication materials were developed to explain the benefits of this intervention and to provide general information about the project, malaria prevention and treatment. Local focus groups were used to test these materials and ensure they were relevant for the diverse communities on Bioko Island.

BIMCP Training and Integration

The Bioko Island Malaria Control Project reviewed the existing treatment protocols in Equatorial Guinea, and in collaboration with the Equatorial Guinea Ministry of Health and Social Well-being (MoH), developed a comprehensive enhanced malaria treatment protocol. A new training curriculum and training materials, based on the World Health Organization's recommendations, were developed, and a clinical skills assessment of medical and laboratory staff is ongoing. Training of MoH health providers at hospitals and health centers began in 2004. This is part of an ongoing process that also includes evaluation of laboratory services, organizational management, staffing, availability of supplies and equipment, and diagnostic capacity. The BIMCP has also procured laboratory equipment and supplies.

The project agreement with the Government of Equatorial Guinea calls for a progressive transfer of responsibility over the five-year period. All activities are there-

fore being closely planned with the Ministry of Health and integrated to the extent possible within existing systems. Where these systems need to be strengthened, BIMCP partners are working together with the Equatorial Guinea government to help build capacity.

A strong emphasis was placed on integration of the BIMCP workforce to ensure long-term success. Over 90% of the project team members are Equatoguineans. IRS activities rely on approximately 90 national sprayers trained to safety and efficiently execute on this component of this project. They are also responsible for interaction with the residents of the local communities and are trained to explain the benefits of the intervention in order to gain access to the interior of structures. An additional ten Equatoguineans are fully dedicated to administer the case management component of the project. Furthermore, over 100 Equatoguineans are involved part-time in the surveillance component of BIMCP.

BIMCP Results

After only two years of indoor residual spraying, results show a 95 percent reduction in malaria transmitting mosquitoes in the homes and human dwellings on the island. (This reduction is based on the average number of infected mosquitoes caught in the homes from prespray baseline research versus annual post-spraying surveys.) Further, the project has resulted in a 44 percent reduction in the presence of malaria parasites in children, based on blood smear testing. Furthermore, the program has achieved tremendous economic benefits to the community.

For a population of a quarter million people on the island that has been experiencing an average of one episode of malaria per person per year, the program was able to avert an estimated 150,000 cases in its first year of implementation. In the same period, the project has brought additional economic benefit to the lower 40% earners in the population through a net savings of 6 percent of their revenues that they would have otherwise spent on treatment of malaria illness. For every dollar invested by the project, the return to the community (in terms of averted cases, improved productivity and reduced absenteeism) was four dollars. In other words, this is a very cost effective social project, having a community benefit/cost ratio of 4:1.

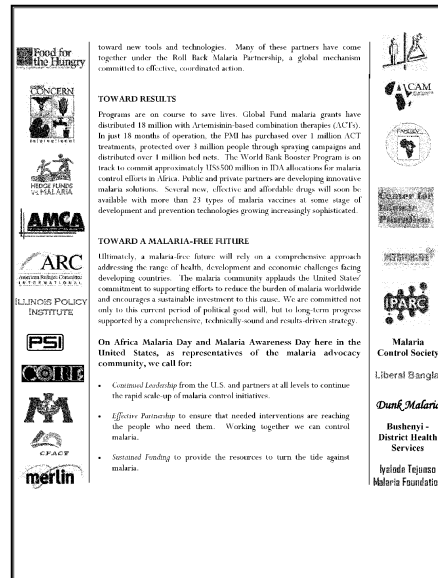


BIMCP SUSTAINABILITY

Marathon and its partners worked closely with the World Health Organization, Carlos III Institute and other organizations supporting health services development on Bioko Island. This collaboration aims to avoid duplication of effort and to ensure that malaria control efforts are effectively integrated for the health and well-being of the local population.

In addition, Marathon was instrumental in supporting a successful application by Equatorial Guinea to the Global Fund to secure a multi-year commitment totaling \$26 million for program expansion. The Marathon Oil Company Foundation is providing an additional \$1 million grant in support of this expansion. This grant represents the Marathon Oil Company Foundation's largest ever donation and will be used to help launch field operations and establish related logistical and management systems, establish vector monitoring sites throughout the country, and conduct a baseline household survey. This partnership, through the teaming of resources

from Marathon and the Global Fund, will permit the replication of the BIMCP intervention strategy on the mainland of Equatorial Guinea, expanding coverage to the entire population of this Central Africa nation.



Based on the success of this intervention and other anti-malaria programs in Africa, companies recognize the value of leveraging their efforts to work together and coordinate with national governments as well as large donor organizations such as the Global Fund, the World Bank Booster Program, and the President's Malaria Initiative (PMI) in order to maximize the benefits for local communities. As mentioned earlier, companies have strong technological and managerial skills that can significantly improve the efficacy of malaria intervention programs in countries where they operate. Private sector companies can also effectively promote the fight against malaria in Africa through advocacy programs. Recently, a group of companies from various industries, all with business interests in Africa, launched the Corporate Alliance on Malaria in Africa (CAMA) to progress the fight against malaria across the continent.

CONCLUSION

The private sector is committed to active participation in the long-term solutions to the burden that malaria has imposed on Africa. There is a strong business case for such participation due to the growing economic importance of Africa, including the Energy sector. Through its on-going actions, the private sector is a genuine partner—with African governments, NGOs, and other stakeholders—in the fight against malaria in Africa.

Mr. PAYNE. Thank you very much. Ms. Wamani? Let me put my glasses on.

Ms. WAMANI. Thank you, Mr. Chairman.

Mr. PAYNE. Wamani.

Ms. WAMANI. Wamani. Right. Thank you.

STATEMENT OF MS. ENID WAMANI, NATIONAL SECRETARIAT COORDINATOR, MACIS (MALARIA AND CHILDHOOD ILLNESS NGO SECRETARIAT), UGANDA

Ms. WAMANI. Thank you, Mr. Chairman and distinguished members of the subcommittee. I am honored to be here today to testify

and will be summarizing from my testimony submitted to the committee.

Mr. PAYNE. Could you pull the mike a little bit closer to you?

Ms. WAMANI. My name is Enid Wamani, and I am the national coordinator for MACIS—that is the Malaria and Childhood Illness NGO Secretariat in Uganda. The goal of MACIS is to coordinate Ministry of Health recommended malaria and child health interventions among nongovernmental organizations, faith-based organizations, and community-based organizations.

I am very thankful to Johns Hopkins University, Center for Communication Programs, for supporting my participation at this hearing, and on behalf of the communities that are affected by malaria and the organizations that I represent, I would like to sincerely thank the Government and people of the United States for the invaluable investment you are making in saving millions of lives.

I am a mother of three children, and I have had personal experience with malaria when my 4-year-old daughter fell ill with a high fever and was later diagnosed with malaria. I have experienced the panic and anxiety that malaria can cause, and I thank God that I am one of the few privileged Ugandan women who can access prompt treatment. My daughter was able to quickly recover. But not all malaria victims are that lucky.

That is why I feel so passionately about my work in Uganda and why this hearing is so important today. You have all heard the devastating statistics earlier, but the good news is that malaria is preventable and treatable, and we are making great progress in turning the tide against this terrible disease.

Governments in malaria-endemic countries have demonstrated the political will to fight malaria. These governments also realize that they cannot fight malaria on their own and now welcome partnerships that tremendously boost malaria control efforts through programs like the United States President's Malaria Initiative (PMI), the World Bank Booster program, the Global Fund, and others.

In Uganda, the PMI and Global Fund are working in partnership with the National Malaria Control Programme to implement a strategic plan. As of February 2007, over 800,000 people in Uganda have received insecticide-treated nets through the PMI support. Another batch of over 1.3 million nets from the Global Fund are now in the process of distribution.

PMI is also supporting the indoor residual spray, known as IRS, in targeted districts. In Kanungu District, where 85 percent of households have been sprayed, the number of cases of malaria at the health facilities has reportedly decreased. The PMI initiative is, therefore, a clear demonstration of an effective partnership that is helping to avert the burden of disease. I, therefore, strongly appeal to the U.S. Government to build on these successes and support PMI to reach its targets.

It is also critical that human, financial, and organizational resources are well coordinated to reach the desired targets. A good example of coordinated partnership in my country has been the Global Fund's Country Coordinating Mechanism (CCM). As a member of the CCM, our CSOs sit at the table when proposals are developed and when funding is allocated, and they have input in the

process. As a result of new leadership and a stronger role of the CSO sector, we expect to have even stronger reporting and transparency in implementation.

CSOs contribute a great value in the malaria fight. Presently, in Africa, we have CSO malaria networks in Cameroon, Ethiopia, Kenya, Tanzania, Uganda, and Zambia, and through these robust networks, CSOs are bringing solid experience from the communities to inform malaria policy. These networks need a solid financial base, currently critically lacking, if they are to meaningfully contribute to malaria control goals.

An area where we can make even greater progress is to build on the capacity of the local CBOs to promote, implement, and monitor malaria interventions. These CBOs remain strategically positioned in the communities to promote sustainability of all interventions.

Resources targeted at malaria control, like PMI, Global Fund, and the World Bank Booster program, and others, need to focus on interventions that do two major things: First, deliver tools and medicines that are needed to fight malaria; and, secondly, promote education programs to ensure that these communities achieve their desired impact.

For example, in a recent survey carried out by the Malaria Consortium in northern Uganda, 90 percent of the PMI net beneficiaries still had the nets 6 months after the distribution, and, more importantly, 94 percent had used the nets the night before the survey. Successes like this come after much hard work, to distribute the nets and to encourage people to change their behavior.

Finally, integrated approaches like the Focused Antenatal Care, supported by PMI in Uganda, ensure that pregnant women know how to protect the rest of their families against malaria.

In conclusion, I wish to thank the committee for this great opportunity to testify. The battle against malaria can be won. We are making important progress, and we must continue to press on. I thank you, and may God bless you all.

[The prepared statement of Ms. Wamani follows:]

PREPARED STATEMENT OF MS. ENID WAMANI, NATIONAL SECRETARIAT COORDINATOR, MACIS (MALARIA AND CHILDHOOD ILLNESS NGO SECRETARIAT), UGANDA

My name is Enid Wamani and I am the National Secretariat Coordinator for MACIS (Malaria and Childhood Illness NGO Secretariat) in Uganda. MACIS is a registered coalition of over 70 Non-Governmental Organisations, Faith Based Organisations and Community Based Organizations in Uganda that are engaged in malaria and child health activities. The mission of MACIS is to provide leadership to Civil Society Organizations (CSOs) in Uganda in coordination and promotion of Ministry of Health-recommended interventions in malaria and child health and advocacy for appropriate policies at all levels. I am also pleased to say that recently I was selected as one of the Developing Countries CSO delegation members to the Global Fund Board.

I am very thankful to Johns Hopkins University, Center for Communication Programs and Voices Malaria Project for supporting me in my efforts to participate at this hearing. On behalf of the communities that are affected by the deadly malaria disease and the organizations that I represent, I would like to sincerely thank the Government and people of the U.S. for the invaluable investment you are making in saving millions of lives in malaria endemic countries. I am a mother of three children and have had a personal experience with malaria when my 4 year-old daughter fell ill with a high fever, refused to eat, looked very miserable and later was diagnosed with malaria. I have experienced the panic and anxiety malaria can cause and I thank God I am among the few privileged Ugandan women who can access prompt treatment. My daughter was able to quickly recover. But not all malaria victims are that lucky.

That is why I feel so passionately about my work in Uganda and why this hearing today is so important. Malaria is preventable and treatable, and we are making great progress in turning the tide against this terrible disease. Through effective partnerships and sustained funding for successful programs, we can continue to make an impact.

THE MALARIA BURDEN

Malaria is a global emergency and it's a huge burden in African countries, communities and families. Nearly 500 million people get sick with malaria each year; two-thirds of them are in Africa. Every 30 seconds someone dies due to malaria and the great majority of deaths are among very young children. Malaria is responsible for more illness and death than any other single disease in Uganda. According to Dr. J. B. Rwakimari, National Malaria Control Programme Manager, in Uganda alone malaria kills over 300 people daily, most of them children less than five years old. Pregnant women are also harmed daily by this disease, becoming anemic and running the risk of losing their babies.

THE GOOD NEWS

Malaria can be beaten. We do not need to have a child buried every 30 seconds due to a preventable calamity. Governments in malaria endemic countries have demonstrated the political will to fight malaria. These governments also realize that they can not fight malaria on their own and have therefore welcomed partnerships that are now tremendously boosting malaria control efforts through programs like the U.S. President's Malaria Initiative (PMI), the World Bank Booster program, the Global Fund and others. These partnerships are supporting the necessary systems and tools to control malaria.

In Uganda, the PMI and Global Fund are working in partnership with the National Malaria Control Programme and civil society organizations to support malaria control strategies as identified in the national Health Sector Strategic plan. One of the key malaria preventive interventions is to sleep under insecticide treated bed nets which protect people against mosquito bites. As of February 2007, over 800,000 people in Uganda have received insecticide treated nets through the PMI and another batch from the Global Fund of over 1.3 million nets is in the process of distribution. PMI is already demonstrating achievements in bringing down the burden of malaria. Helen Onen a community health worker in Ongaka, an internally displaced persons' camp in northern Uganda, had this to say about the bed nets distributed under PMI, "With the net distribution I have noticed that fewer patients have come to visit me," she said. "The families who have received the nets have reported less malaria cases." PMI is also supporting Indoor Residual Spray (IRS) in targeted districts. According to Dr. Stephen Ssebude, District Director of Health Services in the Kanungu district where 85% of households have been sprayed, the number of cases of malaria at the health facilities has decreased from the time the intervention was introduced. The PMI initiative is a clear demonstration of an effective partnership that is helping to alleviate the burden of disease. I therefore appeal to the U.S. government to support PMI to reach its targets.

WHAT THEN IS MISSING?

We urgently need more commitment, sustainable resources and more coordination of the available resources to ensure that the tools reach the households that need them and that these are effectively used. Commitment should continue to come from every government, every leader, and every member of the household if we are to deal a deadly blow against this devastating disease.

SUPPORT COORDINATION OF PARTNERS

Some resources are already in place for malaria control and a lot more is still required. It is critical that these human, financial and organizational resources are well coordinated to reach the desired targets. For proper implementation to happen, governments in endemic countries need to coordinate partnerships that will help to show: who is doing what, where and what gaps still exist. We need to have robust national partnerships between the public and private sector. Once the gaps are identified, we are able to make informed plans and direct resources where they are most needed.

A good example of partnership in my country has been the Global Fund's Country Coordinating Mechanism (CCM). As a member of the CCM, along with representatives of FBOs, NGOs and other civil society organizations, the CCM model empowers our various constituencies to sit at the table when proposals are developed and

when funding is allocated. This is an important opportunity for these groups to have input into the process. The CCM was recently reorganized with new leadership and a stronger role for the CSO sector. As a result, we expect to have strong reporting and transparency in implementation. This experience emphasizes the critically important role that civil society organizations play in malaria control and in development.

Partnerships with Civil Society Organizations (CSOs): CSOs contribute a great value in the malaria fight and this accrues from their strategic positioning within communities. For a long time, the challenge was that activities by CSOs were not coordinated, which led to the need for networks. Presently in Africa, CSO malaria networks exist in: Cameroon, Ethiopia, Kenya, Tanzania, Uganda and Zambia. Appreciation goes to USAID and GlaxoSmith Kline (GSK) who funded establishment of these networks through the CORE Group and Malaria Consortium. Through the robust networks, CSOs are bringing solid experience from communities, including the difficult to reach communities, to the national level where malaria control policy is made. The networks are increasingly becoming important for ensuring that CSOs implement technically sound malaria interventions while minimizing duplication of efforts.

PMI in Uganda has engaged collaboration with some CSOs especially in net distribution, retreatment and activities for indoor residual spraying. However, given the target for 'quick win' there has been very limited opportunity to build the capacity of the local Community Based Organizations (CBOs). And yet these organizations have proved to be very effective in community mobilization and will always remain strategically positioned in the communities to promote sustainability of all interventions. As someone working with the CBOs, I therefore appeal for more involvement of CBOs through training and funding that will build their capacity to promote, implement and monitor malaria interventions. The CSO networks are committed to ensuring that CSO contributions to national malaria control strategies are of top quality as well as extremely inclusive. The networks at the national level need to be supported to meaningfully contribute to the regional networks and subsequently to the global Roll Back Malaria partnership. These networks need solid financial base, currently critically lacking, so as to harness the benefits from the diverse and collective experience of CSOs.

PROMOTE THE RIGHT MIX OF INTERVENTIONS

Resources targeted at malaria control like PMI, Global Funds, the World Bank Booster programme and others need to focus on interventions that will deliver commodities as well as ensure that these commodities achieve the desired impact. Delivery of large quantities of commodities like insecticide treated nets is commendable but these nets will only save lives if they are properly used. Similarly, as long as people are not mobilized to seek prompt treatment, many will continue to die while batches of anti-malarials lie in health facilities. Countries should therefore be supported to have robust systems for advocacy and delivery of the commodities. The CSO networks again add value in building capacity for their members to promote commodity utilization and monitor retention in homes. A recent survey carried out by Malaria Consortium in northern Uganda shows that 90% of the PMI net beneficiaries still had the nets six months after the distribution and of these, 94% had used the nets the night before the survey. It takes intense advocacy for people to start changing their behavior towards such desired standards. Funding for commodities should be balanced with budgets for advocacy and monitoring of commodity use.

STRENGTHEN MONITORING AND EVALUATION WITHIN THE HEALTH SYSTEMS

Improved performance in a country-led malaria programme depends on the quality of the health system. Countries should be supported to develop health systems that are equitable, efficient and accountable. Monitoring and evaluation forms a key aspect of a strong health system. Monitoring and evaluation is very essential for national strategic planning and policy formulation. Through an effective monitoring system all stakeholders are informed about the performance and impact of the malaria interventions. It is important that national programmes have quality health management information systems that collect accurate data based on standard targets and indicators monitored by partners in both the public and private sector.

PROMOTE INTEGRATED APPROACHES

Malaria control takes on an integrated approach to reduce the burden of disease. This includes prompt effective treatment of those affected and interventions to protect individuals from mosquito bites. In addition to the above, other main interven-

tions include: Intermittent Preventive Treatment (IPT) during pregnancy, Information, Education and Communication/Social Mobilization, Monitoring, Evaluation and Research; and Health Systems. Integrated approaches that combine malaria control with other health activities have been found to increase the reach and impact of interventions as well as optimize resource utilization. In Uganda one PMI focus is on training health workers to implement prevention of malaria amongst pregnant women through an integrated package of antenatal care services called Focused Antenatal Care (FANC). This FANC needs to be scaled up to support protection of more pregnant women against malaria. The FANC package includes health education sessions to ensure that the pregnant woman knows how to protect the rest of her family against malaria.

More promising integrated approaches that need to be supported include linkages with schools. There is growing evidence that students are an effective vehicle for promoting behavior change including promotion of malaria control behavior right within the homes where they live. For example in Uganda MACIS' NGO partners like AMREF (African Medical and Research Foundation) and UGACAD (Uganda Child AID Development Foundation) are supporting malaria clubs in secondary schools. Students are educated about malaria control and encouraged to spread the information within their communities. Some boarding schools have gone a step further and made a regulation that requires each student to have an insecticide treated net. Behavior change calls for such collective effort and this is critical for the success of any public health intervention including malaria control. I therefore urge the Committee to call for more support for interventions that promote behavioral changes.

CONCLUSION

I wish to thank the Committee for this great opportunity to testify and share with you some of my convictions on the progress we are making in the fight against malaria. I hope that my testimony has provided some insights into some of the important aspects of leadership, partnership and funding that we need to collectively strengthen as we support affected countries to move towards a malaria free future. It can be done, we are making progress and we must continue to press on. Thank you and may god bless you all.

Mr. PAYNE. Thank you very much. Ms. Lassen?

STATEMENT OF MS. SUSAN LASSEN, NETSFORLIFE COORDINATOR, EPISCOPAL RELIEF AND DEVELOPMENT

Ms. LASSEN. Thank you, Mr. Chairman and Congressman Smith. I am, indeed, honored to have this opportunity. I will present a brief summary of my views.

I work with Episcopal Relief and Development, which is the international relief and development agency of the Episcopal Church. As the global community develops innovative methods to control malaria, the challenge of distribution becomes absolutely critical. Known as "the silent killer," many of the malaria deaths occur in hidden, remote houses, out of sight at the end of the road.

NetsforLife is our church's response. We will distribute 1 million nets in 16 countries in Africa by the end of next year. Launched in Zambia exactly 1 year ago today, our program is funded by donors, churches, Starr Foundation, Coca-Cola Africa Foundation, ExxonMobil Foundation, and Standard Chartered Bank.

We have been able to leverage significant corporate expertise. Two hundred and thirteen thousand nets have been distributed in Angola, Zambia, Kenya, Ghana, Burundi, the D.R. Congo, and Mozambique, and this year, we will be working in Tanzania, Malawi, Liberia, Zimbabwe, and Madagascar.

Over 70 percent of the Africa continent's population is rural. Mission posts and hospitals preceded colonization, and as countries became independent, the majority of them were nationalized. Now, with scarce resources available for health care, many of these

former mission hospitals are once again being run by the church and are today on the front line.

NetsforLife is working in partnership with the Anglican Church in villages now, today. Each church is the focus for volunteers, mainly women, who, with training, become a powerful, sustainable force.

In February, NetsforLife launched in Angola. We were delighted that Admiral Ziemer joined us. At St. Stevens Church in a suburb of Luanda, we were greeted by magnificent singing, rejoicing, and speeches. Nets were distributed.

In St. Andrews Church in Cunene, more than 500 miles from Luanda, there was singing, rejoicing, fewer speeches, and nets were distributed. In this church, invisible to the rest of the world, 118 nets were received by pregnant women, mothers with children under five, the elderly, and those who are HIV positive. But, first, the training.

We sat on benches inside the church under a leaking, corrugated iron roof. A sleeping mat was on the ground. A net was unpacked, hooks and wooden poles assembled, and the net was hung. It was dark, and I could see, peering into the church from the rain outside, faces of people who were listening eagerly, and a huge crowd had gathered, all of whom wanted to learn about the fever. The demand and need was great: 118 nets, 230 people protected.

But let me introduce you to Malita, a young mother who returned with her family to Angola from northern Namibia last year as peace and security seemed so hopeful. It was time to start cultivating the family farm. They had heard that vegetables were selling well in the market, and the future was bright.

Malita had two small children and was pregnant. When her eldest child started feeling feverish the week before, she was utterly powerless to save him. She told me, with tears, how quickly he had died, in her arms, in less than a day.

I met Malita at about 7 o'clock in the evening. She had trekked all day, and she was joyful. She had received her net and knowledge, and now she is a community malaria volunteer. More nets are on their way to Cunene, and Malita will be ready. She has been trained. She will stay in her village and steadily help to build the health, agricultural, and economic production in this small community on the border.

Malita is the hands and feet of NetsforLife and shows us that with a small investment from countries like our own, the fight against malaria can be won, one net, one family at a time.

Episcopal Relief and Development is thrilled to see the expansion of the President's Malaria Initiative and urges Congress to continue to fund it robustly. We sincerely thank this committee for its leadership on this vital issue, and we thank the State Department, USAID, and the Global Fund.

The Zambia Anglican Council that launched NetsforLife last year is now in discussions with a Global Fund grantee, the Christian Health Association of Zambia.

In closing, Mr. Chairman, I would like to say that the church is now, and will continue to be, a vital, steadfast partner, serving all of those in need, regardless of faith. Above all, it has unique access and impact to roll back malaria that difficult last mile.

If Malita was here today beside me, she would say, "God is good all the time; all the time, God is good." Thank you.

[The prepared statement of Ms. Lassen follows:]

PREPARED STATEMENT OF MS. SUSAN LASSEN, NETSforLIFE COORDINATOR,
EPISCOPAL RELIEF AND DEVELOPMENT

Mr. Chairman, Congressman Smith, and distinguished members of the sub-committee:

Thank you for the opportunity to describe the role of the faith based community as partners in the fight against malaria in the developing world.

My name is Susan Lassen. I am a member of the Episcopal Church and consultant for Episcopal Relief and Development's program in malaria prevention: NetsforLife(SM). I am pleased to be joined by Dr. Robert W. Radtke, President of Episcopal Relief and Development which is the international relief and development agency of the Episcopal Church in the United States. An independent 501(c)(3) organization, ERD saves lives and builds hope in communities around the world. We provide emergency assistance in times of crisis and rebuild after disasters. We enable people to climb out of poverty by offering long-term solutions in the areas of food security and health care, including HIV/AIDS and malaria.

As the global community develops new and innovative methods to control and prevent malaria the challenge of distribution becomes absolutely critical. Known as the 'silent' killer many of the one to three million deaths a year from malaria occur in hidden remote house holds out of sight and reach.

NetsforLife(SM) is an inexpensive initiative to distribute one million long lasting insecticide treated nets in six-teen countries in sub-Saharan Africa by the end of 2008. The program specializes in reaching isolated populations, and was officially launched in Zambia exactly one year ago today. Our program is funded by private individual donors, Churches, the Starr Foundation, the Coca-Cola Africa Foundation, the ExxonMobil Foundation, and Standard Chartered Bank. The partnership's ability to leverage the individual funders corporate expertise, in addition to funds, has been significantly instrumental in our effort to fight malaria.

Two hundred and thirteen thousand long lasting insecticide treated nets have been distributed in Angola, Zambia, Kenya, Ghana, Burundi, the Democratic Republic of the Congo, and Mozambique. A mother and her two children can be protected from malaria for five years for a total cost of approximately \$12.

However, NetsforLife(SM) is not only about distributing nets. Within this cost, monitoring evaluation, education, vector management, advocacy for drug access and training around indoor residual spraying, are included. We have been able to build malaria prevention into our current work in integrated community health programs.

This year training and distribution are planned for Tanzania, Malawi, Liberia, Zimbabwe, and Madagascar.

The Church and other faith communities are increasingly important, as they are the first point of contact for help. Over 70% of the African continent population is rural. Mission hospitals and health posts preceded European colonization and as countries became independent the majority of them became nationalized. However, with increasingly constrained Government budgets and scarce resources for health services, many of these hospitals are once again being run by the church and are to-day providing primary health care.

The need to reach remote communities is understood and all faith communities, have long had the ability to build and mobilize a delivery system that will reach the most vulnerable populations who live "at the end of the road." For over three hundred years, they have provided an unparalleled infrastructure and capacity to reach these populations.

Churches in Africa are attended regularly, and are the natural convening point and focus for much of society. Often local leaders, many of them women, are born, nurtured and raised through the church where care and concern for one's neighbor is at the core.

A Gallup poll published in September 2006 of people living in nine-teen sub-Saharan countries found that 76% of those polled trusted the Church, and only 38% their national Government. Where poverty limits a government's ability to care for the health of its citizens, the Church is a dependable and trusted source for solutions to many problems including malaria. The respected leadership of the Church becomes the focus for disseminating information and changing behavior. It's an influential, impartial and a trusted advocate for health services and a mobilizer of volunteers. This is a resource that cannot be under estimated. We believe that the untapped human capacity of the Church, and its infrastructural proximity to vulner-

able populations, provides an effective opportunity for strong partnership with religious communities in Africa, to fight malaria.

NetsforLife(SM) capitalizes on the infrastructure of the Anglican Church to reach these vulnerable populations. There are more than 40 million Anglicans in sub-Saharan Africa. Participating parishes in the program have up to ten outstations and women and youth networks. With training and commitment these volunteers become powerful forces that penetrate entire communities.

May I give you an example of how we work on the ground and an example of what partnership against malaria really means, from the end of the road?

On February 22, I attended the fifth NetsforLife(SM) launch which was in Angola. We were delighted to be joined by Admiral Ziemer, the coordinator of the President's Malaria Initiative, the Vice Minister of Health Dr Jose van Dunem, United States Ambassador Cynthia Efirid; the Anglican Bishop of Angola, Andres Soares, and Dr Steven Phillips, of ExxonMobil, and Mr Mohammad Yasu from Coca-Cola Angola.

The journey to St. Stephen's church in Kiambixi, a suburb of Luanda, took two hours—a distance of four miles. We were greeted by magnificent singing, celebration, rejoicing, and speeches. Nets were distributed.

The atmosphere was different at St Andrew's Church, Ondjiva, in Cunene province, which is more than 500 miles from the capital. Last year there was singing, celebration, rejoicing, fewer speeches, no dignitaries. Nets were distributed.

In this Church, nearly invisible to the rest of the world, 118 nets were distributed to pregnant women, mothers with children under five, the elderly and those who were HIV positive. They had traveled on foot from their village compounds in Namakunde—about five miles on footpaths (not roads or bicycle paths)—and had waited all day for us to arrive, many of them with small children.

The distribution of these 118 nets was, as always, preceded by a training session. We sat on benches inside St. Andrew's Church under a leaking corrugated iron roof. A sleeping mat was on the ground, a net was unpacked, hooks and wooden poles assembled, and the net was hung. Role playing, drama and stories were frequently interrupted for questions. This was a practical class but with constant reinforcement of the importance of using the net and encouraging malaria prevention as a priority. It was dark and I could see peering into the Church from the rain outside faces of people who were listening eagerly. I walked to the doorway, and I was startled to see that a huge crowd had gathered, all of whom wanted to learn about 'the fever'. Although they would certainly leave with some knowledge, they would have to wait for the next shipment of nets, the demand and need was great.

The 118 nets we distributed will protect probably 230 people from malaria for the next five years, but the cumulative effect will be much greater. I'll give you one example:

Malita a young mother, returned with her family to Angola from northern Namibia last year as peace and security seemed so hopeful. It was time to start cultivating the family farm. They had heard that vegetables were selling well in the market and the future was bright.

Malita had two small children and was pregnant. She knew that "fever" came but she had no idea what caused it. She was inclined to believe her mother-in-law that it was 'bad sugar cane.' When her eldest child—about three years old—started feeling feverish the week before, she was utterly powerless to save him. She told me with tears how quickly he had died, in her arms, in less than a day.

I met Malita at about 7 o'clock in the evening; she had trekked all day with her mother-in-law and had waited for her net. Not only did she leave with the net, however, but she left with knowledge. She now knows about fever and what to do. She knows about the malaria mosquito, she knows that she and her child must sleep under the net, not just in the rainy season but every night. She knows about puddles, about keeping her compound clean, and about spraying. She knows about treatment with medicine and she knows where to go for help.

And, perhaps most important of all, she has become a community malaria volunteer. More nets are on their way to Ondjiva, and Malita will be ready, she has been trained in malaria prevention by the NetsforLife(SM) team so that she can educate, support and teach her own village. She will make sure that mothers are protected, that the elderly and sick sleep every night under a net, and that those who need treatment will know where to go. She will make sure that all the medicine is swallowed.

Malita's knowledge and experience will stay in Namakunde; it will steadily build the health, wellbeing, agricultural production and economic vitality of this small community, on the border between Angola and Namibia. Refugees like Malita's family are returning to their old land to cultivate, plant and resettle and malaria is a sickness that they cannot afford.

People like Malita are the hands and feet of NetsforLife(SM) across Africa and are demonstrating that with very small investment from countries like our own, the fight against malaria can be won.

Episcopal Relief and Development is thrilled to see the continuing expansion of the President's Malaria Initiative and urges Congress to continue to fund it robustly. We thank this subcommittee for its leadership on this vital issue, and we thank the State Department, USAID, and multilateral partner, the Global Fund to Fight AIDS, Tuberculosis, and Malaria. The Zambia Anglican Council that launched NetsforLife(SM) last year is now in discussions with a Global Fund grantee the Christian Health Association of Zambia (CHAZ).

We began this testimony, Mr. Chairman, by describing the need and role of the faith-based community in the fight against malaria. The Church is now, and will continue to be a vital steadfast partner, committed to serving all those in need regardless of faith. It is pragmatic and efficient and has unique access and capability to RollBackMalaria—that difficult, last mile.

We would also like to add that the faith communities in Africa draw on a unique level of commitment, inspiration, and energy from a faith—born partly out of theology and partly out of circumstance—that God is omnipotent and that His purpose is greater than any one individual or community.

As the Anglican Bishop of Lebombo, Mozambique, Denis Sengulane often says: God has no hands—and he has no feet, eyes, or ears—in the world except our own. For the faithful of Africa, their core identity is shaped by the sense that God is using them to help draw their communities into the wholeness and wellbeing He intended for them when He created the world and proclaimed it good. This involves healing the sick and feeding the hungry, and at a fundamental level, it involves working for the systemic change that will eradicate poverty permanently.

In closing and in answer to your question Mr. Chairman, the faith-based community is willing and eager to follow the leadership of this committee, to be partners in the fight against malaria and to save lives.

Malita offers us just one example of true partnership. If she was here to-day, she would say to this committee:

“God is good all the time
All the time God is good.”

Thank you.

Mr. PAYNE. Thank you very much. Let me thank all of you for your very compelling testimony.

Let me ask Dr. Lazzari, I understand that the Global Fund desperately needs new funding to continue giving grants to organizations fighting malaria. In 2008, approximately 90 grants will come up for renewal. What level of funding are you currently working with, and what is the gap between your current funding level and the funds needed for these new grants? How would you characterize the U.S. contribution to the Global Fund so far? Have you been engaged?

Dr. LAZZARI. Thank you very much for the question, Mr. Chairman. The Global Fund does need more resources in order to extend the coverage of our grants and also increase the number of grantees. We estimated, based on the analysis of the existing grant and the future needs, and this is what has been presented to what we call the “replenishment meeting,” which is the meeting of the funder of the fund for the next 2 years, that the amount of yearly funding required would have to increase to the range of \$6–9 billion in order to cover all of these requirements.

About the U.S. contribution, I have already stated that the U.S. has provided about 30 percent of the funding and is a large contributor, and I think we would expect the U.S. Government to continue to provide the contribution directly to the fund, but I will say also, to departments.

This is a collective effort. The Global Fund covers part of the need, but it does not provide technical assistance, and it requires

the full support of all of the other technical partners. So it is the partnership that will conquer the fight against malaria.

We welcome the President's Malaria Initiative, and we welcome all additional initiatives, whether it is from governments or private sector or any other civil society organization, to join in the fight against malaria and provide a contribution, large or small, as it might be.

Mr. PAYNE. Thank you very much.

Dr. Daulaire, you mentioned, in your testimony, one of the things about the need for a comprehensive approach against malaria, including insecticide-treated bed nets and indoor residual spraying, antimalaris drugs, et cetera, but you also said that there is hope one day that there could possibly be a vaccination for malaria. I wonder, has there really been enough interest?

It would seem that since malaria impacts poor people primarily, pharmaceuticals, in the past, have not had a big incentive. There are other medications they could seek that would probably, at the end of the day, be more profitable because the clientele that it would be targeted to would be in a better position to afford it. Of course, there has been a shift because of countries stepping up to the plate, like the U.S., in purchasing, especially with HIV and AIDS.

But do you feel that there was a lack of incentive because of the people it impacted on; and, secondly, do you think that there is enough will—I think that is a good word that we have heard today—the admiral mentioned it, too—do you think there is the will to try to find a vaccine?

Dr. DAULAIRE. Chairman Payne, for 40 years, we have been 5 years away from an effective malaria vaccine, and it has been very discouraging and very difficult for those of us who have been on the front lines of addressing this because we recognize just what a huge change a vaccine would make in the world.

There are two sets of problems in terms of the vaccine development. One of them is scientific, and the other one is resources. I want to be clear that both of those have played a critical role. As I said before, the malaria parasite is a shape shifter, and it is very hard to aim and hit it directly with a vaccine because, in different stages of its life, the immune system responds differently to it.

So there has been a real scientific and technical challenge in developing that. But the reality is that, through the eighties and into the nineties, there was a real dip in the investment in malaria vaccine.

I am a firm believer in science. I am a firm believer that when the human mind sets itself to a certain task, that it will accomplish that, and I think that a malaria vaccine that will work, that will be safe and effective, will be developed, and there has been an enormous increase in the level of resources going into that from private industry, who have seen that not only is this something important for the world, but, in fact, there are markets for malaria vaccine.

Secondly, from government agencies—the NIH and other governments—that have reincreased their investments in vaccine development; and, thirdly, from new sources that were not on the scene more than 10 years ago, particularly the Bill and Melinda Gates

Foundation, which has made a major investment into the new research and development of vaccines for malaria and other major killers of poor people.

Mr. PAYNE. Thank you very much. Doctor Chaouch, you gave a business perspective. Has your company engaged other businesses in attempting to get more support? What you are doing is great, you know, good corporate citizen, but have you engaged in trying to encourage other corporations to be involved the way your Marathon Oil Company is?

Mr. CHAOUCH. Thank you, Mr. Chairman. Yes. We actually have worked with a group of companies coming from the medical sectors of industries, including the energy business and engineering companies, as well as pharmaceutical, with the intent to launch a coalition for the fight against malaria, a corporate alliance on malaria on Africa.

Mr. PAYNE. Thank you very much. Ms. Wamani, can you tell us how the Global Fund process has worked in Uganda from the grant process/proposal process to the implementation? As a vice chair of Uganda's Country Coordination Committee for the Global Fund, you must have seen, up close and personal, how these programs come together. So how does it fit? Does it work right? Are there improvements that could be made?

Ms. WAMANI. Thank you, Mr. Chairman. Global Fund in Uganda has, just like in other countries, used various structures for management. We have had CCM and principal recipient and sub-recipient from both the public and private sector, and we think it has been quite an effective program in our country, although, of course, we may know that, in the past, we have had some unfortunate happenings, whereby the fund did not perform as expected, and Uganda had to have some of the grants cancelled.

But we have had a very big opportunity to learn from our past experiences to strengthen the systems that were not working that effectively. As a matter of fact, our CCM has been reorganized to ensure stronger leadership, to ensure stronger involvement of the CSOs, and has put into place robust monetary systems, and are sure that where we are moving to, we will be able to achieve the desired effect. Thank you.

Mr. PAYNE. Thank you very much. Finally, Ms. Lassen, as we have heard, and the ranking member mentioning, about the role of faith-based organizations, do you feel that in the malaria fight there is enough activity in the faith-based organizations, or do you think they have been lagging? We know what you are doing, but what is the general faith-based community's engagement in the malaria fight, to date?

Ms. LASSEN. I think if you talk to any health facility, whatever, Anglican, Catholic, whoever it was, they would say that malaria is the most important outpatient treatment that they do and, indeed, the children that they admit. So everybody is involved in malaria.

I think, still, the key is distribution of prevention. I think we know what to do. We just find it is very hard to do in very small amounts to reach the entities, very rural communities, and often it is the churches that are in those communities. I think you know that, Congressman Smith. So we are working very hard to dis-

tribute and disseminate small amounts of nets to the end of the road, the last mile.

Mr. PAYNE. Well, thank you very much. I know there is a 5 o'clock reception in the foyer across the way, so I will allow the ranking member to ask each of you a question, if he would, and then we will adjourn the meeting.

Mr. SMITH OF NEW JERSEY. Thank you very much, Mr. Chairman. Let me just, first of all, piggy-back on that last question and answer and, Dr. Lazzari, maybe address it to you first.

If you could tell us exactly how much and what percentage of Global Fund grants actually go to the faith-based organizations, as primary recipients and also as sub-recipients, and what mechanism exists to ensure that the country-coordinating mechanisms include, in a robust way, people from the faith-based community, especially—I know you were here earlier—in light of what I believe is either exclusion by, unwittingly or wittingly, either by government or by program managers at the Global Fund.

I think it was probably more acute perhaps in the HIV/AIDS issue, whether it be from bias or prejudice to church-based provision. I found it appalling, in talking to Catholic Church leaders, and they actually issued a statement on it, that they do 40 percent of the health care, and they get less than 5 percent of Global Fund monies.

Now, some of that could be a technical advice issue. Are they applying it correctly? But as not part of the coordinating committee or mechanism, a country-coordinating mechanism, how do you have access? You could have great intentions, but without resources—you have a venue, you have people willing to do it, but not money to do it.

If you could provide, either now or for the record, not only those percentages but those examples. Both you and Ms. Lassen mentioned the Christian Health Association in Zambia, which is encouraging, but it is one. Are there others exactly like it in Nigeria? I was just in Nigeria. I met with the bishop in Abuja and also with faith-based church people in Lagos, and they were pretty much cut out of the loop, which I found very disturbing. The Episcopal Church leaders have told me the exact same thing. They are certainly not prioritized.

So if you could provide us those facts and maybe an explanation—maybe it is something that you are working towards, but it is a very deep concern of mine because you have a capacity that is not being utilized, and that means loss of life.

Dr. LAZZARI. Congressman, thank you for your question. I must say, I saw it coming.

Mr. SMITH OF NEW JERSEY. I believe in being transparent.

Dr. LAZZARI. Okay. So let me say, first, that acknowledge the fact that faith-based organizations are providing a large number of services in many countries in Africa and especially reaching populations that cannot be reached and are not reached by government services.

I can tell you that I have personal experience of this. I worked for 4 years in the Kingdom of Lesotho working on HIV/AIDS, and in the Kingdom of Lesotho, the Christian Health Association covers 50 percent of that service area and provides services to 50 percent,

at least, geographically, of the country. I have come to appreciate the capacity of delivering services of the association.

The Global Fund welcomes applications from civil society at large, and we provide more than 20 percent of the funding to civil society and faith-based organizations. There is no question about that.

I am not in a position to provide you with exact figures of how much money from the Global Fund goes to faith-based organizations, and part of the problem is tracking of sub-recipients. We have a very good monitoring system for the principal recipients, but in terms of sub-recipients, we have less information. A system to have a better tracking and monitoring of the final destination of the money and implementers and what the money is used for is being set in place.

But, with the permission of the chair, I would be happy to provide a statement within a few days with the most updated information we have for this committee.

What I can say is that, apart from Zambia, we have sub-recipient FBOs for malaria grants, at least in Gambia, Catholic Relief Services; Ghana, Senegal, Council of Churches; Sierra Leone, again Catholic Relief Services; and in Tanzania. And these are just specifically malaria, and, as you said, probably HIV/AIDS has a more developed level of participation of civil society.

How can we improve access to Global Fund grants? I would suggest two ways.

First, building capacity among the faith-based organizations to develop good proposals, and, of course, it is easier if they are organized, as it happens in Zambia, in just one organization that can represent them and has the capacity to prepare the proposal and get it approved at the national level.

Second, we think that it is very important what my colleague from the Global Health Council said a few minutes ago. Bringing civil society at the table when the decision is taken, and that is why the Global Fund has a strong participation of civil society on our board that is meeting this week in Geneva, and we require participation by civil society, including faith-based organizations, in the CCM.

We believe that, by bringing them to the table, we will give them an opportunity to propose projects, to push for them to be approved, and also to participate in the oversight of the overall grants in the country. And we believe that the contribution to the oversight and the resolution of problems, where they exist, that comes from civil society and faith-based organizations is extremely beneficial, and it should be sustained.

It is a process. It will take time, but we think the benefits are clear, and we have to push in that direction.

Mr. SMITH OF NEW JERSEY. I certainly appreciate that answer and, I think, the sooner, the better. Tracking the sub seems to me to be so elemental in ensuring not just that the money is being spent wisely and prudently but that when a report is given on services provided, how do you know if the subs are not providing that raw data to put together documents? Because you have very encouraging statistics in here, but how do we know whether the subs are actually delivering on what they say they are doing?

Usually, if there is a problem, it is a sub, you know. So I would just encourage you, again, so strongly on the faith based because I think we are missing an enormous capacity that is preexisting to all of this—Global Fund and the PMI—and not to use it would be foolhardy. Yes?

Dr. LAZZARI. If I could be allowed a piece of information that I forgot to mention. We track performance. The Global Fund is based on performance-based financing, so we collect performance of the grants very closely. What I can say is that overall performance of the grants of the Global Fund is 75 percent above average, or close to average, so well-performing grants.

When it comes to civil society grants, this percentage increases to 83 percent. So they actually are performing better, and, of course, we encourage well-performing grants. They are welcomed by the Fund.

Mr. SMITH OF NEW JERSEY. With regard to the intermittent preventive treatment for pregnant women, Admiral Ziemer made a very strong statement that up to 200,000 infant deaths each year could be prevented. I am one of those who believe that unborn children are just as human and alive as a newborn or a 5-year-old, so I would include miscarriages in that data on children whose lives have been saved.

My question is, what kind of prioritization is that kind of program being given by the Global Fund?

Dr. LAZZARI. The Global Fund considers intermittent preventive treatment as one of the four essential components.

Mr. SMITH OF NEW JERSEY. But in terms of actual percentages of what you are spending.

Dr. LAZZARI. The Global Fund is based on national ownership and national decisions, so the priority to one or the other or the balance is decided at country level through discussion at the CCM with the technical partners. The Global Fund will not intervene in the discussion, except in the review by the technical review panel. We will make sure that what is being proposed is in accordance to the most up-to-date scientific evidence, it is feasible, and it is something that can achieve the results which are expected.

So, in our mechanism, we cannot prioritize one intervention against another within a country. It is a country decision. What we would expect, though, is our technical partners—the World Health Organization but also other partners, including CDC, USAID—to have a presence in the country, in particular, to work with the CCM and balance this so that the most benefits can be achieved for the good of the people.

As I said before, we provide quite a bit of support to the preventive treatment in women. It is one of our priority areas, but it is a reflection of the priorities of the countries on the portfolio of the Global Fund.

Mr. SMITH OF NEW JERSEY. Does the Global Fund collect actual data on the results for sub-recipient, and could we get a copy of that? I know you said you are going to be giving us some information on faith-based very shortly, because, again, I think the only way to do a qualitative analysis and to build additional support for funding for the Global Fund, transparency has to be absolute, and if we know what is happening on the ground, it certainly helps

those of us who want to end malaria and mitigate its effect, present day, to do so. Could you provide that?

Dr. LAZZARI. We track performance of Global Fund grants at the level of principal recipient, and this is under the oversight of the CCM, and the local funding agent certifies that what is being presented is actually accurate. If there is any problem, of course, we would look into that.

We are not yet in a position to provide the same level of measurement for the sub-recipients, and I think you have to appreciate that there are 450 grants, and a large number of sub-recipients would require a very intensive system to enable us, centrally, to track every single grant at that level.

Having said that, we think this is extremely important information, and a system is being designed to do that. As I said, it is not my specific area of expertise within the Global Fund, and I am not in a position to give to this committee a clear answer, but I am going to take this back to Geneva, and we will provide it in writing to you, sir.

Mr. SMITH OF NEW JERSEY. And one final question: The Global Fund has terminated at least seven grants globally. Uganda lost some \$16 million, and I know that there is now a new team in place. Is that money retrievable; or is that lost, and new applications have to be made; or some of it is spent, and you are trying to get it back; or was there money in the pipeline that you could redirect to Uganda to try to help them in their crisis?

Dr. LAZZARI. Performance-based funding is based on performance, and when grants are not performing to a level that we do not see them achieving the targets that the grantees themselves have set for themselves, then the board, not the Secretariat of the Global Fund, can make the decision to terminate the grant. As you said, this has happened only in a handful of cases.

What happens is the grant is terminated, and the money is redirected to better-performing grants that can acquire more resources and have demonstrated the capacity to achieve more results.

What we would expect is for this to be a learning experience for the CCM and for the country that would make application and implementation of future grants much improved. That is what we want to promote. So the discussion, then, continues with the country inside the CCM to identify the bottlenecks and the reasons. There is a continuous dialogue with the CCM and the Secretariat and the principal recipient on this to address remedial action. That is what happened in Uganda, as in the other countries where, unfortunately, grants had to be terminated, but it is only a handful.

Mr. PAYNE. From what I understand, that grant was funded by another organization, so the operation did not end. It was funded by another grant/grantee. So I do not know why it was terminated, but the service continued, and no employees—I think there were 25—were terminated.

Dr. LAZZARI. Whether we suspend the plan or we terminate, we will certainly see that the life-saving drugs still are received by the country and that basically the program will continue. The Global Fund is not the only implementer. It is not the only funder. So alternative resources can be found.

But, again, this is a process of local and national ownership, and, really, ownership and flexibility come with responsibility and accountability, and that is what we want to see. So we would like, through this process, to really try to build this level of responsibility and accountability that allows good implementation of the grants.

Let me also add that, out of this experience with these grants, we have now developed an early warning system that attempts to detect signs of potential problems early enough so that the CCM can be informed and remedial action can be put in place before we reach the level of—to discuss and present to the board a proposal for termination. So, hopefully, termination will be really an exceptional event in future grants.

Mr. PAYNE. Thank you.

Mr. SMITH OF NEW JERSEY. I would just conclude by saying that the CCMs and having a robust representation by faith-based organizations will greatly improve the ability for you and for all of us who care about what you do, to deliver those services. I was late coming to this hearing precisely because a youth-build program designed to help disadvantaged youth in the City of Trenton did not make the grade when the evidence clearly showed it should have. There is a give and take, a back and forth, and my hope is that we will be able to restore those funds.

The faith-based initiatives, if they are not at the table, will be left out in perpetuity, and there will be more sick and dying people as a direct result of that. So I would hope that some kind of central directive, regulation—call it whatever you like—would be implemented. Maybe there needs to be a percentage of people that must be faith-based, and not tokens; people who really do provide in-country health services because, as of now, they are being precluded those fundings. Thank you.

Mr. PAYNE. Thank you very much.

Let me, once again, thank each of you, the witnesses here. Following this hearing, as I mentioned, I invite everyone here to join Ranking Member Smith and myself to the Malaria Awareness Day reception, which began 20 minutes ago and which we are co-hosting, along with the Friends of the Global Fight, Global Health Council, Johns Hopkins, PATH, Malaria Vaccine Initiative, and the Malaria Council. The reception is right here on this floor in the Rayburn foyer, and I, once again, want to thank the witnesses.

Also, I ask unanimous consent that the following submissions be a part of this afternoon's hearing record: One, a statement by Dr. Arati Cache, director of the World Health Organization's Global Malaria program, a malaria community's statement reflecting the views of 45 different groups working on this issue; and, secondly, a statement by Africa, "Fight Malaria."

Without objection, and hearing no other business, the meeting stands adjourned.

[Whereupon, at 5:20 p.m., the subcommittee was adjourned.]

A P P E N D I X

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE SHEILA JACKSON LEE, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF TEXAS

I would like to thank the subcommittee Chairman, Mr. Payne, for convening this hearing in recognition of Malaria Awareness Day. Let me also thank the Ranking Member, and my fellow committee members for addressing this important global health concern. I would like to welcome the six distinguished witnesses on our two panels today, and I look forward to your insightful analysis on how to build upon recent momentum surrounding this ongoing global health issue.

Though malaria has been eradicated in the United States for over sixty years, it continues to be a prominent cause of death worldwide, particularly in sub-Saharan Africa. Nearly half the world's population lives in areas where malaria is transmitted. Even beyond those exposed to the disease on a daily basis, the social and economic consequences of malaria resound around the world. Experts estimate an annual 300 to 500 million cases of malaria worldwide, with over one million deaths attributed to the disease each year.

The greatest tragedy of malaria is that it is both preventable and treatable. While we are still searching for a vaccine, we do have a number of important tools in our arsenal. A mosquito-borne parasite, malaria can be combated with insecticide-treated mosquito nets and by a number of effective and relatively inexpensive medications.

Like HIV/AIDS, Africa bears the brunt of the malaria burden. An estimated 90% of the annual one million malarial deaths occur on this continent. Sub-Saharan Africa, in particular, has the highest rates of malaria in the world, with only 7% of this region's inhabitants living in areas considered to be low- or no-risk for the disease. Children are particularly hard hit; malaria accounts for 25% of all deaths of African children under five. According to the United Nations Development Program's Roll Back Malaria Partnership, malaria kills a child in Africa every 30 seconds. By that calculation, if this hearing lasts for one hour, 120 African children will have died while we've been discussing this issue.

Though Africa is particularly affected, it is far from alone in facing this threat. Even in regions with declining mortality rates and disease prevalence, such as South and Southeast Asia and many countries throughout Latin America, the high rate of malarial drug resistance is cause for significant concern. Increasing resistance poses a significant threat to global efforts to control the disease, and, according to the Centers for Disease Control, has been linked to recent increases in malaria mortality. Rates of drug resistance are highest in Asia, where they are compounded by the prevalence of counterfeit and substandard drugs. In the Amazon region of South America, the vast majority of countries have been forced to change their national drug policies due to rises in resistance to previous treatments.

There is no silver bullet guaranteed to halt the threat posed by malaria, no single solution to ease the suffering of the millions around the globe faced with this disease. Efforts toward discovering a vaccine, though promising, are, according to World Health Organization estimates, at least several years away from delivering. Fortunately, we have several methods of treatment and prevention which are both effective and inexpensive. Key among these are the Intermittent Preventive Treatment, used for prevention of the disease in pregnant women, and the use of insecticide-treated mosquito nets.

Recent attempts to combat this disease have made an important start, but they have failed to keep pace with the ever-changing global health threat posed by malaria. Malarial parasites have proven capable of adapting quicker than policy-makers, and funding has not kept pace with the immense need. President Bush has pro-

posed a \$300 million contribution to the Global Fund, a key actor in the fight against this devastating disease and the recipient of strong US support over the past several years. \$300 million is both woefully inadequate and a significant decrease from last year's contribution. Instead, the United States should be continuing to increase its commitment to the international fight against malaria.

The past several years have seen both a rise in interest and attention surrounding malaria, and the development of a consensus on how best to prevent and treat this disease. We must maintain and augment this interest and support, as we work to continue to make important strides, in both scientific and policy circles, towards implementation.

WRITTEN RESPONSES FROM STEFANO LAZZARI, M.D., SENIOR HEALTH ADVISER, THE GLOBAL FUND TO FIGHT AIDS, TB AND MALARIA, TO QUESTIONS SUBMITTED FOR THE RECORD BY THE HONORABLE CHRISTOPHER H. SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Question:

What percentage of Global Fund grant funding goes to faith-based organizations (FBOs) at the primary recipient level for HIV/AIDS, TB and malaria combined? What percentage at the sub-recipient level? Given the prominent role of FBOs in providing healthcare in Africa, it is important that these organizations be fully funded in order to take advantage of and fully utilize their indigenous capacity. Do these percentages reflect the level of health care provided generally by FBOs in the respective recipient countries?

Response:

The Global Fund recognizes the great contribution that faith-based organizations (FBOs) are making in combating disease around the world. In total, the Global Fund has committed over \$190 million of the funds approved between Round 2 and Round 5 to FBOs as Principal Recipients, representing approximately six percent of the Global Fund's overall portfolio.

Adhering to the principle of national ownership as well as accountability, the Global Fund works with the Principal Recipient and the Local Funding Agent (LFA) that reviews grant performance to oversee and evaluate implementation by sub-recipients. LFAs are the Global Fund's eyes and ears on the ground and play an important role in verifying the performance of grant-funded programs each time recipients report results. At the beginning of 2007, the Fund asked its Principal Recipients to report on high level budget information, including programmatic areas and sub-recipients. This analysis found that in ongoing grants, approximately 30% of funding went to NGOs, including faith-based organizations.

In addition, the Global Fund is working to improve its data management systems to better capture sub-recipient information. The Global Fund is currently pilot testing a financial tracking approach aimed at capturing more detailed budgetary and expenditure information about funding that goes to sub-recipients. Based on the outcome of this pilot-test, the Global Fund anticipates enhancing its financial tracking mechanism during the second half of 2007. This information may not be available for the entire portfolio until mid-next year, depending on how it is decided to request the information from the Principal Recipients.

In some cases, the Global Fund is providing funding to FBOs that are responsible for a significant portion of the health care delivery in that country. One example is the Churches Health Association of Zambia (CHAZ), a local FBO that is acting as the Principal Recipient for HIV/AIDS, malaria and TB grants totaling nearly US\$ 41 million over two years (out of an overall approved 2-year funding level of US\$ 121 million). CHAZ has grown to be one of the largest healthcare providers in Zambia, accounting for 50 percent of health coverage in rural areas and 30 percent nationally. CHAZ has been able to quickly scale-up health services in the most remote areas of the country by distributing Global Fund resources to 250 local FBOs.

Faith-based organizations are the critical providers of rural health care and orphan care in many parts of the developing world and can play an expanded role for reaching the hard-to-reach and poorest population groups. FBOs also provide a large share of treatment, and an even larger share of care in many cases. Recognizing the unique advantages of FBOs, the Global Fund encourages FBO participation in all grants, both as recipients and members of Country Coordinating Mechanisms (CCMs), the entities that create country proposals. In addition to CHAZ, some examples of local FBOs currently supported by Global Fund grants include:

Norwegian Church Aid (NCA), an FBO affiliated to the World Council of Churches and the Lutheran World Federation, is a member of Thailand's CCM and acts as a sub-recipient for one of the Global Fund's HIV/AIDS grants in

that country. NCA is part of an interfaith network consisting of Buddhist, Protestant, Muslim and Catholic organizations. Among many other activities, they recruit and train community volunteers to provide services like prevention counseling and home-based care. In addition, they are at the forefront of providing care to orphans.

Mufti's Office, a Muslim FBO which acts as a sub-recipient for a Round 2 HIV/AIDS grant in Zanzibar is well suited to reach the population with health education and prevention messages. Their religious leaders are highly regarded and trusted, making them a good entry point for the response to HIV/AIDS in that country.

Lutheran World Federation (LWF), an international FBO, was the first non-governmental organization to sign a grant directly with the Global Fund. It is also the only Global Fund program currently operating around the world. LWF has made significant progress in implementing its plan to mobilize church support for the fight against HIV/AIDS. In addition to other programs, it provides direct support to community-based HIV/AIDS projects and has also launched advocacy campaigns to reduce HIV-related stigma and discrimination.

World Vision is another international FBO involved in several Global Fund programs around the globe. For example, through a Round 3 TB grant in Somalia, it assists implementing organizations in strengthening existing services and establishing new peripheral TB centers in areas not presently covered. World Vision is also building the capacity of managerial, health and laboratory staff and is improving awareness of TB among patients and families through information, education and communication campaigns.

Catholic Relief Services (CRS) is a Principal Recipient that has been at the forefront of dealing with international diseases. In Madagascar, CRS act as the Principal Recipient on a Round 2 HIV/AIDS grant. Due to its substantial history in Madagascar, CRS is well suited as a recipient in that country. The CRS grant demonstrates the potential for FBOs to deliver health interventions in troubled settings.

Question:

What measures have been taken centrally by the Global Fund to ensure the active and meaningful participation by FBOs in each of the Country Coordinating Mechanisms (CCMs) and the grant application process?

Response:

Country Coordinating Mechanisms (CCMs) are one of the most innovative components of the Global Fund's architecture, created to ensure that civil society, including FBOs, along with government, the private sector, multi- and bilateral organizations and people living with the diseases have a real voice in decision-making related to the Global Fund at the country level.

In an effort to encourage active and meaningful participation by civil society, including FBOs in CCMs, the Global Fund has put in place requirements that ensure a better platform for leveraging these constituencies in CCMs and in the implementation of programs. These including requiring that all non-governmental CCM members should select their own representatives; that CCMs must show evidence of membership of people living with HIV/AIDS; and that a transparent system of soliciting and reviewing proposals to the Global Fund should be established. In collaboration with partners like UNDP, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), African Council of AIDS Service Organizations (AFRICASO), USAID, AIDSPAN and UNAIDS, the Global Fund Secretariat has worked with many CCMs to help them understand these requirements and other CCM guidelines. The Secretariat will not forward funding proposals for review if these requirements are not met, including submissions for a continuation of funding.

In addition, the Global Fund Secretariat has staff *that* focus their work on providing support to CCMs, to ensure that they better include members of civil society, including FBOs. Global Fund Portfolio Managers also work to make sure that the voice of civil society and FBOs is incorporated in guiding decisions at the country level.

Finally, the Global Fund will continue to promote to the full utilization of the potential of civil society and FBOs in the fight against the three diseases. At the fifteenth Global Fund board meeting, held in Geneva, Switzerland from 25 to 27 April 2007, the Board adopted a decision point which calls for a stronger participation and engagement from the civil society, including FBOs. The text of the decision follows:

Strengthening the Role of Civil Society and the Private Sector in the Global Fund's Work

Decision Point GF/B15/DP14

The Board believes that civil society and the private sector can, and should, play a critical role at all levels of the architecture and within every step of the processes of the Global Fund, at both the institutional and country levels. This includes their critical roles in the development of policy and strategy and in resource mobilization at the Global Fund Board level, and in the development of proposals and the implementation and oversight of grants at the country level. The Board further expresses its desire for strengthened and scaled-up civil-society and private-sector involvement at both the country and Board levels, while recognizing the respective strengths and roles of the two sectors.

With this goal in mind—and also reaffirming the importance of effective Country Coordinating Mechanisms (CCMs) in ensuring strong country-level development of proposals and oversight of grants—the Board recognizes the need to further enable civil society and the private sector to play their critical roles, facilitated by the following:

The routine inclusion, in proposals for Global Fund financing, of both government and non-government Principal Recipients (PRs) for Global Fund grants (“dual-track financing”). The Board recommends the submission of proposals with both government and non-government PRs. If a proposal does not include both government and non-government PRs, it should contain an explanation of the reason for this;

The routine inclusion, in proposals for Global Fund financing, of requests for funding of relevant measures to strengthen the community systems necessary for the effective implementation of Global Fund grants;

The effective representation and meaningful participation of vulnerable groups (as defined in the context of each particular country) on CCMs; and

Simplified CCM access to funding to support their effective administrative functioning, for the life of a grant that the CCM is overseeing when needed, and increased transparency by CCMs about how they plan to ensure access by civil society to such funding.

The Board requests the Secretariat to take the necessary actions and collaborate with partners to achieve the above outcomes, working with the relevant Board committee(s), where necessary.

In particular, the Board requests the Policy and Strategy Committee to agree to a suitable definition of the term “civil society,” by building on existing work to that effect.

Question:

The absence of a system to track and monitor Global Fund funding to its ultimate destination and grant implementation on the ground is an obstacle to ensuring that monies are reaching the intended beneficiaries and achieving the anticipated objectives. Why has such a system not been implemented? Is such a system being considered in the near future? If so, please describe the information that such a system would likely provide.

Response:

Adhering to the principle of national ownership as well as accountability and a commitment to low administrative overheads, the Global Fund works with the Principal Recipient and the Local Funding Agent (LFA) that reviews grant performance to oversee and evaluate implementation by sub-recipients. LFAs play an important role in verifying the performance of grant-funded programs each time recipients report results.

Currently, the total amount of funds disbursed to sub-recipients is reported by Principal Recipients to the Global Fund every 3 or 6 months (depending on the reporting cycles). This information is contained in the “Progress Updates” provided by Principal Recipients which are available on the Global Fund website. At the beginning of 2007, the Global Fund asked its Principal Recipients to report on high level budget information, including programmatic areas and sub recipients. This analysis found that in ongoing grants, approximately 30% of funding went to NGOs, including faith-based organizations.

In the near term, the Global Fund is working to improve its data management systems to better capture sub-recipient information. The Global Fund is currently pilot testing a financial tracking approach aimed at capturing more detailed budgetary and expenditure information about funding that goes to sub-recipients. Based on the outcome of this pilot-test, the Global Fund anticipates enhancing its financial tracking mechanism during the second half of 2007. This information may not be available for the entire portfolio until mid-next year, depending on how it is decided to request the information from the Principal Recipients

Question:

The monitoring system established through the LFA seems to only address issues with a grant after the issues have become serious. Does the Global Fund have an "Early Warning System" to notify a CCM that a grant is at risk and to give the CCM the opportunity to take remedial action before funds are pulled? Are CCMs provided with technical support when it becomes apparent that a grant is at risk due to lack of technical capacity for implementation? If so, how is such support funded?

Response:

To address issues before they become serious, the Global Fund has established an early warning system, referred to as the Early Alert and Response System (EARS). It was created to promote systemic and proactive monitoring of grant implementation by stakeholders at country, regional and global levels. The main purpose of this system is to identify as early as possible grants that are poorly performing and/or are facing difficulty in implementation to mobilize an appropriate response and take corrective action.

In many countries the system is working and serving the important purpose of identifying problems before they become serious. As a result, national and international partners are able to resolve emerging issues affecting implementation. In countries where the system can improve, the Secretariat and partners at the regional and global level are working to create more responsive engagement and active problem solving.

As part of the EARS system, starting in 2005, every progress and disbursement request is given a performance rating based on their results against targets. A-rated achieve more than 80 percent of targets, B1-rated grants 50–79 percent and C-rated grants less than 30 percent. Since March 2006, all of these grades are posted on the Global Fund website and are used by the Secretariat to assess the portfolio. In addition, the corresponding Grant Performance Report is updated on a case by case basis and posted to the website as well.

If needed, technical support to both CCMs and recipients is generally provided by a variety of partners at the country level, including bilateral and multilateral agencies, and in some cases, civil society. In the event where these organizations are unable to deliver timely and effective assistance, there is a range of regional and global mechanisms available to provide technical support to grantees. In these instances, the Secretariat works to broker the appropriate technical assistance from a number of organizations. These include the:

Global Implementation and Support Team (GIST), an organization co-founded by the Global Fund, the World Bank and UN Agencies such as UNAIDS, UNDP, UNICEF, UNFPA and WHO, to coordinate the responses of participating agencies whenever challenges to implementation are detected. The GIST focuses its work on country-driven problem solving to unblock obstacles to accelerated grant implementation. Its member organizations meet on a monthly basis to review immediate and medium-term technical support needs, take decisions on joint and coordinated technical support to be provided, evaluate progress and assess performance of such support, and look at ways to improve interaction between GIST member organizations and countries.

Office of the US Global AIDS Coordinator also provides technical assistance to Global Fund grantees and CCMs;

UNAIDS Technical Support Facilities (TSF) are also emerging as an important potential source of support to Global Fund grantees;

GTZ Backup Initiative has been a key provider of support to CCMs and grantees in a number of countries;

TB TEchnical Assistance Mechanism (TBTEAM), an initiative of the StopTB partnership has been set up to provide technical support to Global Fund TB grantees;

RBM Harmonization Working Group, an initiative of the Roll Back Malaria Partnership has been set up to provide technical support to Global Fund malaria grantees

In addition, Global Fund Portfolio Managers are in direct and regular contact with the CCMs and Principal Recipients about concerns they may have about grant performance. In this system, the main findings of LFA assessments at the time of disbursement requests are shared with the CCM and Principal Recipient after disbursements are made. If problems are identified, a dialogue is initiated between the GF Secretariat, the Principal Recipient and the CCM to discuss the assistance that may be needed to help get the grant get back on track.

STATEMENT OF DR. ARATA KOCHI, DIRECTOR, WORLD HEALTH ORGANIZATION GLOBAL MALARIA PROGRAMME

The WHO Global Malaria Program appreciates the invitation from Chairman Donald Payne and Ranking Member Chris Smith and the committee to provide a statement for the record in conjunction with today's important hearing on malaria.

THE GLOBAL MALARIA BURDEN

Over 3 billion people are at risk and each year more than 500 million people suffer from acute malaria resulting in more than 1 million deaths. Climate changes associated with global warming could worsen this situation bringing malaria to parts of the world that are currently malaria free. Malaria also strikes more than 125 million non-immune travellers who visit malaria-endemic countries annually, resulting in between 10,000 to 30,000 cases among travellers. It also contributes indirectly to many additional deaths, mainly in young children, through synergy with other infections and illnesses. While people of all ages can contract malaria, it is extremely dangerous and debilitating in young children and pregnant women, through anaemia, low birth weight, premature births and infant mortality. In endemic African countries more than 50% of outpatients and up to 80% of inpatients in health facilities are due to malaria. Malaria accounts for 15–35% of hospital deaths, imposing a great burden on already fragile health-care systems.

Evidence continues to accumulate that malaria contributes conjointly with HIV/AIDS to morbidity and mortality in areas where both infections are highly prevalent, such as in Africa south of the Sahara. Acute malaria episodes temporarily increase viral replication and therefore HIV viral load. In addition, pregnant mothers who have HIV and malaria are more likely to pass HIV to their children. HIV-infected adults with low CD4 cell counts may be more susceptible to treatment failure of antimalarial drugs. WHO estimates that 400,000 HIV-positive pregnant women are exposed to and at risk of malaria.

ECONOMIC IMPACT

Malaria's impact exacerbates the poverty of poor countries and communities through its significant effects on long-term economic growth and development. It has been shown that countries with a high burden of *P. falciparum* malaria had annual economic growth rates that were 1.3% lower than other countries over the period 1965–1990, after controlling for other determinants of growth. Evidence shows that malaria keeps poor people poor, costing Africa US\$ 12 billion per year in lost GDP and consuming up to 25% of household incomes and 40% of government health spending. Malaria disproportionately affects poor people, with almost 60% of malaria cases occurring in the poorest 20% of the world's population. There are numerous channels through which the disease can contribute to lower economic growth and poverty, including private and non-private medical care costs; reduced productivity of malaria sufferers and caretakers; reduced size of the labour force relative to the entire population, through influencing fertility decisions and therefore the demographic structure of societies; by discouraging foreign direct investment, trade and tourism; and by inhibiting the movement of labour. Malaria has lifelong effects on cognitive development and education levels, due to malaria-induced anaemia and impaired learning and attendance in schools. Conversely, the control and in some cases elimination of malaria in South-East Asia coincided with the Region's subsequent economic boom.

In addition to Africa, malaria also affects large areas of Central and South America—particularly the Amazon basin, Haiti and the Dominican Republic, the Indian subcontinent, Southeast Asia, and the Middle East—including Iraq and Afghanistan. Closer to home, CDC reports that 1,337 cases of malaria, including 8 deaths, were reported for 2002 in the United States, even though malaria was “eliminated” in the continental United States in the early 1950s. “Airport malaria,” the importing of malaria by international aircraft and other conveyances, is a regular occurrence as is the spread of malaria by international travelers. However, fear of malaria, and/or the inconveniences of taking malaria prophylaxis, keeps many tourists and industries away from certain regions, plunging them further into poverty.

THE GLOBAL FIGHT AGAINST MALARIA

No one needs to suffer from malaria. In recent years, the visibility and political and financial support for malaria has been increasing dramatically. In particular, the United States, through the President's Malaria Initiative as well as continuing efforts by USAID, CDC and NIH, plays an ever increasing and important role in the global fight against malaria. Various new tools have become available, such as

artemisinin-based combination therapies (ACTs), long lasting insecticide-treated nets (LLINs), and Rapid Diagnostic Tests (RDTs).

- *Case management:* ACTs are now recommended as the best current treatment for uncomplicated falciparum malaria. WHO released its treatment guidelines in early 2006 and issued a monotherapy ban to protect the efficacy of artemisinins and to delay the development of resistance. WHO is currently finalizing a comprehensive manual including redesigned patient record cards and tracking mechanisms, to support countries in implementing their national treatment policies, and streamlining and increasing the effectiveness of their malaria case management.
- *Malaria Prevention (LLINs):* WHO is focusing on universal access to LLINs. To realize the full potential of this intervention and ensure that vulnerable groups (children <5 and pregnant women) are effectively protected, LLINs should be used by all community members. Coverage with LLINs, is still generally extremely low, even though this is the best protection available, and rapid progress is being made in some areas. New opportunities have appeared with the integration of LLIN distribution into health systems, particularly targeting children and pregnant women. This includes mass campaigns joining immunization and LLIN distribution. However, many countries do not have adequate resources—particularly human—to manage distribution campaigns.
- *Malaria Prevention (IRS):* IRS is highly effective as a means to rapidly reduce transmission and therefore rapidly reduce malaria-related morbidity and mortality. However, this intervention is massively underused. As an initial step, WHO prepared a position paper on the use of IRS, based on various country experiences, including spraying with DDT which has long been the cheapest insecticide, the one with the longest residual efficacy (6–12 months) and the only insecticide currently used exclusively for public health. WHO is currently finalizing a manual which includes guidance on improving the quality of the intervention in countries already employing IRS and to guide countries which will be implementing IRS for the first time.

WHO has also developed a country profile database, including indicators on the epidemiological situation, malaria policy, strategies and program performance, health delivery structure, drug and insecticide resistance, and resource flows which will assist countries in utilizing malaria data to improve programs and guide the allocation of programme resources.

Malaria control is therefore at a critical juncture where new tools, targeted strategies, visibility and funding are all simultaneously available. WHO has spent the last 1.5 years preparing the tools to help countries roll out their interventions, and scale up their programmes rapidly to achieve their long awaited goals for malaria control. Decisive and coordinated rolling out of malaria strategies now would show results in a much shorter term than investments into TB or HIV/AIDS.

CHALLENGES AND BARRIERS TO ADDRESSING GLOBAL MALARIA

However, challenges persist. While overall funding for malaria control has been increasing, countries have generally not benefited in proportion to the amount of increased funding being made available to them.

First and foremost, the tools currently available must be protected. Resistance has developed to almost all of the previous antimalarial medicines that were used, taking from just a few to several years to spread worldwide. Therefore it is critical that the efficacy of artemisinins, the only effective medicines against drug resistant parasites, be protected. Malaria-bearing mosquitoes are also becoming resistant to the insecticides deployed to kill them. However, WHO is stringently monitoring drug and insecticide resistance, and is working closely with countries to implement systems to avert these two potential catastrophes.

Countries also need timely and high quality data in order to be able to effectively manage their programs and direct their resources to where they will be most effective. Current methods focus mainly on assessing effective coverage and impact of interventions, without sufficient attention to the performance of programs. Large scale surveys can be expensive, and are not suitable as a management tool for national programs. Countries need effective program assessments and support in order to be able to report effectively and in a timely manner on progress or challenges encountered.

With the technology and tools to prevent, treat and avert malaria-related deaths, it is unacceptable that every day close to 3000 children succumb to malaria. Early and effective treatment of malaria disease shortens its duration, prevents the devel-

opment of complications and the great majority of deaths from malaria. ACTs need to be used widely and correctly, especially as they have a very short shelf life—a scarce two years from the time of production until they expire. WHO recommends that effective treatment should be made available at all levels of service delivery down to the community. It is therefore already supporting communities to actively participate and direct approaches such as Home Based Management of Malaria which ensure that drugs are available if not in the home, as close as possible.

IRS is the most effective means of rapidly reducing malaria parasite transmission. However IRS is labor intensive, requiring good planning and effective deployment to achieve the expected rapid reductions in malaria morbidity and mortality possible with this intervention. Many countries are being provided with the necessary equipment to undertake IRS but do not have the internal capacity to plan and implement spraying campaigns. Unmet requirements range from training sprayers in proper spraying techniques to measuring coverage and impact gains. Countries therefore fail to take full advantage of this critical intervention.

Weak health systems hamper malaria sufferer's access to medications and preventive measures. Malaria is an enormous burden on African health systems, representing the major share of daily outpatient treatments in some areas. WHO is therefore supporting approaches which strengthen the health system. Using its unique relationship with Ministries of Health, it has already begun piloting a system which is using case management as an entry point to strengthen tracking and treatment of malaria.

Malaria interventions must be implemented through an integrated approach. Without a comprehensive package of support strongly directed by clear evidence-based strategies, malaria control is doomed to repeat its failures of the past.

RECOMMENDATIONS: HOW TO EFFECTIVELY ADDRESS OUTSTANDING CHALLENGES AND BARRIERS TO FIGHT MALARIA

WHO's Global Malaria Programme (GMP) has developed the needed intervention manuals and training packages—for case management, ITNs and IRS—to help countries better reach their target populations. It has also developed a country profile database to help countries monitor their malaria burden, evaluate the performance of their programs, and better target their interventions. Many countries, with the financial support of the World Bank Booster Program, Global Fund for AIDS, TB and Malaria, US President's Malaria Initiative, and others are poised on the brink of being able to achieve their malaria control objectives. However, without sufficient in-country technical skills or capacity to absorb the funding, a critical opportunity to finally beat the scourge of malaria will be lost. GMP by helping countries with the correct policy and technical advice, strengthening country capacity and harmonizing RBM partners around the same implementation strategies and goals will help countries to fully utilize available funds and achieve their long awaited results.

I would like to recommend that the US' allocation for technical assistance be increased to 10% of its contribution to the Global Fund. Evidence is accumulating that without coordinated, comprehensive, systematic and consistently available technical assistance especially in areas such as drug and insecticide resistance, monitoring and evaluation, supply chain management, training and operational research—countries continue to set targets but fail to reach them. The potential for a quick and decisive hit against malaria is upon us. Every minute we deliberate another two children die needlessly. There is no time to waste.

Thank you.

STATEMENT ON BEHALF OF AFRICA FIGHTING MALARIA BY ROGER BATE,¹ RICHARD TREN² AND PHILIP COTICELLI³

Dear Mr. Chairman:

Thank you for inviting Africa Fighting Malaria to submit written testimony to this most valuable hearing. Africa Fighting Malaria is a health advocacy group based in South Africa and the US. We monitor the activities of aid agencies and health groups in Africa, and in other parts of the world, and advise those interested in policies to combat malaria and other diseases.

¹ US Director Africa Fighting Malaria, Resident Fellow American Enterprise Institute.

² Director, Africa Fighting Malaria, Washington DC

³ Research and Communications Manager, Africa Fighting Malaria, Washington DC

A TIME FOR PROGRESS

The past 18 months have been an exciting time for those interested in malaria control. President Bush's announcement of the President's Malaria Initiative in June 2005 brought not only increased political attention to the disease, but a significant increase in financial resources. In 2006 the newly appointed head of the World Health Organization's (WHO) Global Malaria Program, Dr Arata Kochi issued new malaria treatment guidelines, the first in 20 years. In September 2006, Dr Kochi issued new policy guidelines on Indoor Residual Spraying, which recognized that this important intervention has been overlooked and should have a more prominent role in malaria control. In addition to these changes, there has been a surge in interest in malaria from the public and a significant increase in the number of private and faith-based initiatives that contribute to malaria control.

Africa Fighting Malaria strongly welcomes all these initiatives and the increased partnerships in malaria control that could benefit disease control significantly. However we would caution against unbridled optimism. As we point out in three papers that we are issuing in connection with Africa Malaria Day, there is ample scope for improvement among both donor agencies and UN organizations.

We have given summaries of these papers below along with links to the publications.

Most donor agencies have pledged to meet the Millennium Development Goals, one of which is to "[h]alt and begin to reverse the incidence of malaria and other major diseases" by 2015. Many donors and UN agencies supported the Roll Back Malaria Partnership's goal of halving the "burden of malaria" by 2010, starting in 1998. Unfortunately few donors or UN agencies put any significant effort into measuring baseline malaria prevalence and efforts to monitor progress towards that goal over time have been both scant and inadequate. With no starting point and no means of knowing whether progress was being made, the targets were illogical and the promises made by donor agencies were pointless, if not insulting to the millions of people at risk from malaria.

MAKE GOALS MEANINGFUL AND MEASURABLE

In our working paper, *"Africa Malaria Day 2007: Time for a Check Up"* AFM Director Dr Roger Bate and research assistant Kathryn Boateng expose the pointlessness of target setting in malaria control and point out the damage that such targets can do. Bate and Boateng conclude:

"As fund-raising efforts and urgent press statements are prepared for yet another Africa Malaria Day, we are confronted by certain harsh realities. After all this time, tracking the progress of the UN Millennium Declaration's efforts towards its MDGs and the effectiveness of measures taken still remains elusive. Has the existence of the MDGs changed pre-existing trends in performance? Currently, one can only guess. Blind donor support for the MDG malaria initiative, which still shows no scientifically-measurable progress towards significant malaria control after a seven year life-span, is thus both irresponsible and wasteful. Only USAID's PMI is tracking whether its specific interventions are lowering malaria incidence and death, and the data they generate while useful, will not suffice to establish whether an MDG target has been hit for a particular country. Those whose lives depend on western aid, currently fixated on the MDGs, have not been well served and deserve better. Donors must remember that it is highly risky to continually throw funds toward any organization without serious consideration of its effectiveness or to continue to support and promote a target that is not being measured properly.

It is time for groups such as the GFATM and the PMI to seriously reconsider their support for the malaria MDGs. These groups and other donors need to decide whether they are serious about measurement and the goals of the MDGs or not. If donors are serious they will have to fund the collection of detailed and coordinated information regarding malaria death rates. On the other hand, donors could, and probably should, abandon the MDGs and simply be more honest with the international community about what is measurable and achievable and then promote their success stories. But staff at donor agencies are undoubtedly concerned that their political and financial backers will not appreciate such honesty in a field that thrives on obfuscation and good intentions.

Those seriously working towards actual achievement of the MDGs must work harder to better address the challenges of on-ground realities and inadequate data. Otherwise, come 2015, Africa's malaria woes could still be featured prominently on the global development radar and the MDGs would be referred to, if at all, as yet another well-intentioned target leading to another unsuccessful development effort. By then, the GFATM and the PMI may have continued to do good work but could have lost their credibility and support because of aid fatigue due to MDG failure."

HOW DONORS ARE DOING: DO WE KNOW?

In a related paper, Africa Fighting Malaria has published its *Malaria-Donor Scorecard*. With the increased political attention and funding available for malaria control, there are more initiatives and programs than ever before. AFM is curious to know what the major OECD bi-lateral donor agencies are doing for malaria control, how their policies relate to the WHO guidelines and what the agencies are doing to improve monitoring and evaluation so that we can assess whether their spending affects malaria cases and deaths. For these reasons we approached the OECD and 23 of the OECD bi-lateral donors.

AFM believes that without increased openness and transparency among the donor agencies, progress against malaria will be frustrated. Unless malaria scientists, the advocacy community and perhaps most importantly, those at risk from malaria, know what bi-lateral donors are doing, it will be very difficult to critically assess their programs and contribute positively to their efforts. For the reasons explained above in our MDG paper, we feel that it is incumbent on the donor community to improve monitoring and evaluation so that we know the effect of spending on malaria rates; for far too long donors have measured successes according to commodities procured. Private companies cannot declare their pre-tax profits as the sum of expenditure on inputs. In the same way, donors should not be permitted to declare successes in malaria control in terms of commodities procured. Donors can and should measure progress in malaria control according to changes in the disease burden, such as morbidity and mortality data and/or parasite prevalence surveys.

Given the important and far-reaching reforms made to the USAID's malaria control programs, we were able to benchmark other donor agencies against USAID. Few donors match up to USAID's responsiveness to our requests for information and none are as transparent with regard to explaining how, when and where taxpayers' money is being used in malaria control. In addition, USAID appears to be one of the few donor agencies that is taking monitoring and evaluation seriously, although even in this category there is room for improvement. Unfortunately more than half of the donor agencies studiously ignored our repeated requests for information which therefore earned them an automatic failure as one of our primary goals in this project was to measure openness and transparency.

We conclude that "[w]ithout improved transparency and better monitoring of outcomes, AFM fears that the latest round of political focus on malaria will fade, along with much-needed funding. Unless donor agencies become far more explicit about how they spend their taxpayers' money in malaria control a unique opportunity truly to control malaria as a serious public health threat will be lost.

Reforms to the OECD system of collecting data on bilateral donor commitments to public health programs are urgent and necessary. We find that the information collected by the OECD on bilateral healthcare funding is out of date, incomplete and possibly inaccurate. Improving this system with better and more timely reporting of data from the donor agencies themselves would be an obvious step in the right direction and would improve transparency."

CRITICAL IMPORTANCE OF EVALUATING NET EFFECTIVENESS

Our final paper "WHOPES and Its Impact on Long-lasting Insecticidal Treated Net Availability" written by Philip Coticelli deals with the World Health Organization's Pesticide Evaluation Scheme (WHOPES) and the market for long lasting insecticide treated nets (LNs). In 2004 the WHO and other Roll Back Malaria partners called for a scale up in the production of LNs. Most malarial countries do not have sufficient regulatory capacity to perform the tests that would determine whether or not a net marketed as an LN is actually an LN. In addition, these countries do not have sufficient testing facilities to determine whether the insecticides are safe for humans and effective against the *Anopheles* mosquitoes. For these reasons, most countries require that an LN has passed WHOPES Phase II tests and is given interim approval before they will allow the nets to be marketed in their country or procured by a development partner for free distribution.

The call for increased production capacity for LNs was heeded by several private companies, however only two companies, Sumitomo which markets Olyset, and Vestergaard-Frandsen which markets Permanet, have been given either full approval (Olyset) or interim approval (Permanet) from WHOPES. Several companies have waited more than two years to be given approval by WHOPES even though scientific studies have been conducted confirming that some of these nets are safe and effective and can indeed be classified as LNs.

WHOPES is, in effect, acting as a barrier to entry for new LN manufacturers and has created a duopoly for Sumitomo and Vestergaard-Frandsen S.A. AFM firmly believes that the people at risk from malaria will benefit from increased competition

that will increase the range of options available to them and will bring down prices, as competition inevitably does.

AFM finds it troubling that one of the LN duopolists, Vestergaard-Frandsen uses its position and power to undermine other non-LN anti-malaria interventions. For instance, Mr Mikkel Vestergaard-Frandsen, owner and founder of Vestergaard-Frandsen S.A. has been a vocal critic of indoor residual spraying and the use of DDT in malaria control, even though there is strong scientific evidence to confirm that this method of malaria control is highly effective. Given the clear commercial incentives that Mr Vestergaard-Frandsen has in ensuring that any non-LN intervention is undermined, AFM hopes and trusts that his efforts to undermine IRS will be dismissed.

Coticelli concludes “. . . For all its commendable efforts, WHOPEs has been inconsistent and has unintentionally acted as a barrier to market entry. Its reviews and recommendations are valuable, but they should incorporate a wider body of data and fast-track promising technologies. No new products will receive interim recommendation before January 2008, so RBM donors should decide now which ones qualify based on available data and let them compete for public contracts. UNICEF supply agreements should be a guide. Its factory and product evaluations could serve a formal regulatory role for new and existing LNs in countries lacking regulatory capacity. Donors must make outcomes as much a priority as inputs. For years they have invested public funds on nets without rigorously monitoring results or measuring the impact on malaria cases and related deaths. Strengthening epidemiological surveillance will help all concerned to understand which nets work best.”

CONCLUSION

Mr. Chairman, Africa Fighting Malaria has long been involved in malaria advocacy and firmly believes that the prospects for malaria control are brighter now than they have been for many decades. We thank you for your leadership and for holding this hearing and we urge you and all of Congress to maintain its interest in this disease and to take an active role in oversight. If the United States does not maintain its leadership in malaria control, we fear that efforts to control the disease will wane and any ground gained will be lost.

AFM hopes that your committee will take the concerns that we raise in our three papers seriously and will use its position to effect much needed reforms in these areas.

Thank you again for the opportunity of submitting written testimony.

LINKS TO AFM RESEARCH PAPERS

Philip Coticelli “WHOPEs and Its Impact on Long-lasting Insecticidal Treated Net Availability” Africa Fighting Malaria, Washington DC, April 25, 2007

www.fightingmalaria.org/pdfs/AFM_WHOPEs_LLN.pdf

Africa Fighting Malaria “Malaria-Donor Scorecard” Africa Fighting Malaria, Washington DC, April 25, 2007

www.fightingmalaria.org/pdfs/AFM_Scorecard_report.pdf

Malaria-Donor Scorecard Summary:

www.fightingmalaria.org/pdfs/afm_scorecard.pdf

Roger Bate & Kathryn Boateng “Africa Malaria Day 200&: Time for a Check Up”

Africa Fighting Malaria, Washington DC, April 23, 2007

www.fightingmalaria.org/pdfs/MDG_AFM_final.pdf












A Malaria Community Statement –

April 25th is Africa Malaria Day worldwide and the first Malaria Awareness Day in the United States. In observance of this day and in recognition of the tremendous opportunities to reduce the burden that malaria imposes worldwide, we, the undersigned organizations, stand in support of the following statement.

PROGRESS

The progress in fighting malaria in the last few years offers great promise. After too many years of debate, there is now widespread agreement about what works for prevention, diagnosis and treatment. Resources to fight malaria have grown considerably. New spokespersons from the developing world and donor countries have begun to relay key messages. Corporations and multilaterals are working together to replenish the development pipeline and bridge the supply gap of essential prevention tools and treatments. Foundations and other donors have catalyzed investments in new technologies, such as new single dose Artemisinin-based combination Therapies (ACTs), and research into vaccines continues. Some afflicted countries are paving the way for reducing barriers created by import tariffs and malaria service user fees. The world has recognized the toll that malaria takes on the developing world and is poised to respond.

THROUGH PROGRAMS

Since 2003, three major malaria programs have emerged providing over a billion dollars for malaria programming in the hardest hit countries. The Global Fund to Fight AIDS, TB and Malaria is the single largest source of global malaria funding, providing two-thirds of all international financing. The Fund has approved \$2.6 billion in grants for 117 malaria programs over five years in 76 countries and \$950 million has been disbursed so far. Since it began in 2005, the World Bank Malaria Booster Program for Africa has dedicated \$357 million to support 11 operational projects across 14 countries. The President's Malaria Initiative (PMI) has pledged \$1.2 billion to support malaria control programs in 15 African countries.

THROUGH PARTNERSHIP

National governments, international agencies, private donors, advocates, program implementers, faith-based organizations and affected communities have joined forces to fight malaria. Advocacy networks have emerged in the US, the UK, France, Belgium, Cameroon, Mozambique, Ethiopia, Zambia, Kenya, Mali, Ghana, Tanzania and Uganda. Grassroots campaigns exist in the US and the Netherlands. Public-private partnerships continue to work






























	<p>toward new tools and technologies. Many of these partners have come together under the Roll Back Malaria Partnership, a global mechanism committed to effective, coordinated action.</p>	
	<p>TOWARD RESULTS</p>	
	<p>Programs are on course to save lives. Global Fund malaria grants have distributed 18 million with Artemisinin-based combination therapies (ACTs). In just 18 months of operation, the PMI has purchased over 1 million ACT treatments, protected over 3 million people through spraying campaigns and distributed over 1 million bed nets. The World Bank Booster Program is on track to commit approximately US\$500 million in IDA allocations for malaria control efforts in Africa. Public and private partners are developing innovative malaria solutions. Several new, effective and affordable drugs will soon be available with more than 23 types of malaria vaccines at some stage of development and prevention technologies growing increasingly sophisticated.</p>	
	<p>TOWARD A MALARIA-FREE FUTURE</p>	
	<p>Ultimately, a malaria-free future will rely on a comprehensive approach addressing the range of health, development and economic challenges facing developing countries. The malaria community applauds the United States' commitment to supporting efforts to reduce the burden of malaria worldwide and encourages a sustainable investment to this cause. We are committed not only to this current period of political good will, but to long-term progress supported by a comprehensive, technically-sound and results-driven strategy.</p>	
	<p>On Africa Malaria Day and Malaria Awareness Day here in the United States, as representatives of the malaria advocacy community, we call for:</p>	
	<ul style="list-style-type: none"> • <i>Continued Leadership</i> from the U.S. and partners at all levels to continue the rapid scale-up of malaria control initiatives. • <i>Effective Partnership</i> to ensure that needed interventions are reaching the people who need them. Working together we can control malaria. • <i>Sustained Funding</i> to provide the resources to turn the tide against malaria. 	<p>Malaria Control Society</p>
		<p>Liberal Bangla</p>
		<p><i>Dunk Malaria</i></p>
		<p>Bushenyi - District Health Services</p>
		<p>Iyalode Tejunso Malaria Foundation</p>