

Michael Miller
Deputy Assistant Administrator for Global Health
U.S. Agency for International Development

Testimony before the
Subcommittee on Africa, Global Human Rights
and International Operations
Committee on International Relations
House of Representatives
April 26, 2005

I would like to thank you for convening this important hearing and for inviting me to testify. Thank you for directing attention and putting the spotlight on two very deadly and insidious diseases. Malaria and Tuberculosis affect the health and wealth of nations and individuals. Especially in Africa, both are diseases of poverty and diseases that cause poverty. TB and malaria are the highest priorities for USAID in our work in infectious diseases.

I will speak briefly about the problem, burden and challenges of TB and then malaria, particularly in Africa and outline USAID efforts to battle these diseases.

Tuberculosis

Although a cure for Tuberculosis has existed for more than half a century, the disease is often diagnosed or treated improperly, treatment doesn't reach those who need it, and so it continues to infect and kill some 2 million people every year, according to the WHO. Nearly 9 million people will develop TB during 2005.

Worldwide, the number of new TB cases increases by about 1 percent every year. The global resurgence of TB has been fueled by increasing HIV/AIDS prevalence, inadequate investments in public health system and emerging resistance to anti-TB drugs. Persistent poverty, crowded living conditions, and delayed diagnosis and treatment contribute to transmission of the disease.

TB threatens the poorest and most marginalized groups, disrupts the social fabric of society, and slows or undermines gains in economic development. An overwhelming 98% of the 2 million annual TB deaths - and 95% of the new TB cases each year - occur in developing countries. On average, TB causes three to four months of lost work time and lost earnings of 20 – 30 percent of household income. For families of persons who die from the disease, the impact of TB is even greater as about 15 years of income is lost due to premature death. In developing countries, the impact of TB on the family is even more important as TB generally afflicts the most economically active segment of the population between the ages of 15 and 54.

In 2004 TB killed nearly 2 million men, women and children worldwide. The good news is that, thanks to better methods of controlling the disease, the global number of deaths is starting to fall. The bad news is that the TB problem is worsening in sub-Saharan Africa,

where HIV rates are high. Tuberculosis and HIV feed off each other: they are entwined in a deadly co-epidemic which we must confront by succeeding in expanding TB treatment in African countries in the same way as China, India, Indonesia, and the Philippines have done. Globally, death rates have fallen by 2.5% between 2002 and 2003; and when HIV-positive TB patients are excluded, death rates have fallen by 3.5% illustrating the deadly combination of these two diseases. According to the latest WHO report on TB, of the 15 countries with the highest TB incidence rates, 12 are in Africa.

Of the 1.7 million annual deaths due to TB, about 13% are co-infected with HIV. But almost 1.5 million however, die from TB alone. While it is absolutely necessary to address both the TB and HIV epidemics together and to address the co-infection issues head on, it is not enough to only deal with co-infection – even in Africa where the TB/HIV burden is highest. Expansion and strengthening of the DOTS, the WHO recommended strategy for TB control, remains the cornerstone for effective TB control in all settings.

We are making progress in much of the world and the Millennium Development Goal (MDG) to halt and reverse the incidence of TB is within our reach. The World Health Organization reported this March that levels of TB have dropped by nearly a quarter worldwide since 1990. The key to this success has been the DOTS strategy which is now in use in 182 countries. DOTS is a cost-effective approach with high cure rates even in poor countries. In less than a decade, more than 17 million TB patients were treated under DOTS. Detection of TB is increasing, in USAID assisted countries and worldwide, and DOTS programs have nearly reached the global target of 85% for treatment success.

USAID programs are making an important contribution to these results. Our programs support the expansion and strengthening of DOTS, and training of doctors, nurses and lab technicians. We provide lab equipment and supplies, help strengthen laboratory quality assurance, and support program monitoring and evaluation and information and communication campaigns to educate communities about TB.

Multi-drug resistant (MDR) TB is a serious problem. Since the beginning of the global anti-TB drug resistance surveillance project in 1994, 49% of new TB patients and 21 countries or settings in Africa have been surveyed. TB drug resistance is of low magnitude – below 3% - in the region. However, one of the challenges in Africa is a lack of information about TB drug resistance. Only 3 countries or settings have trend data on anti-TB drug resistance – Botswana, Mpumalanga province in South Africa, and Sierra Leone. Among these, the rate of MDR TB in Botswana increased from 1.2 in 1999 to 2.7% in 2002, and warrants continued surveillance. In Mpumalanga province of South Africa, the rate of MDR TB increased from 2.5% in 1997 to 4% in 2001. To help address this problem, USAID is providing assistance to expand and strengthen DOTS in this South African province. To address the gap in TB drug resistance information, continued investments in DOTS, including laboratory strengthening and training of personnel, are needed.

Multi-drug resistant (MDR) TB is a serious problem in some countries. Since the beginning of the global anti-TB drug resistance surveillance project in 1994, 49% of new TB patients and 21 countries or settings in Africa have been surveyed. TB drug resistance is of low magnitude – below 3% - in the region. However, one of the challenges in Africa is a lack of information about TB drug resistance. Only 3 countries or settings have trend data on anti-TB drug resistance – Botswana, Mpumalanga province in South Africa, and Sierra Leone. Among these, the rate of MDR TB in Botswana increased from 1.2 in 1999 to 2.7% in 2002, and warrants continued surveillance. In Mpumalanga province of South Africa, the rate of MDR TB increased from 2.5% in 1997 to 4% in 2001. To help address this problem, USAID is providing assistance to expand and strengthen DOTS in this South African province. To address the gap in TB drug resistance information, continued investments in DOTS, including laboratory strengthening and training of personnel, are needed.

But DOTS programs are straining under the pressure, especially in sub-saharan Africa where TB cases continue to increase due to HIV/AIDS, and where limited numbers of health workers and inadequate health facility networks create obstacles to care, especially for the poorest and most vulnerable. This means that too often TB sufferers are not found in time; or if they are, they cannot be supervised through their treatment. We must do more to find TB patients earlier, and to treat them effectively when we do.

Engaging the private sector is one approach to addressing these constraints. In addition to working with Ministries of Health, USAID works with the private sector to improve diagnostic capacity and to increase access to quality TB treatment through initiatives called Public-Private Mix. Our efforts are paying off. In addition to working with Ministries of Health, USAID is works with and . Over 40 Public-Private Mix (PPM) DOTS pilot projects are underway in 14 countries, including several countries in Africa. These projects include individual private providers, as well as non-governmental organizations and Private Voluntary Organizations (PVOs). Treatment success rates in the PPM pilots are at or above the global target of 85% in most pilot sites, and the PPM sites have demonstrated increases in case detection of new TBsmear positive cases between 14% - 61% due to private sector referrals to DOTS programs or diagnosis and reporting of cases in PPM sites. These PPM activities focus on the local level and engage private sector providers and health clinics, workplace clinics, pharmacies and NGOs in fighting the disease.

USAID is the leading bilateral donor in TB supporting the global expansion and strengthening of DOTS. In addition to supporting DOTS expansion in nearly 40 countries, USAID provides funding to the Global Fund to Fight AIDS, TB and Malaria (GF), and The Global TB Drug Facility (GDF) which provides grants for TB drugs to countries in need. We support advocacy, and research on new drugs and diagnostics. We also provide technical support to the GDF to help countries to strengthen management of TB drugs - this is absolutely crucial to ensure that drugs don't sit in a port, but instead reach the patient.

Increased funding for TB and new mechanisms are making a difference. The Global Fund has committed approximately \$425,000,000 to the battle against TB. The Global TB Drug Facility, part of the global Stop TB Partnership, has effectively tackled the challenge of irregular and poor quality TB drugs. Since its inception in 2001, GDF grants, as well as the GDF procurement service has provided TB drugs for over 3.5 million patients, and the GDF has helped reduce the price of the TB medicines by about 30 percent, to approximately \$12.00 per treatment regimen.

Twenty-five African countries have been approved for 2-year TB grants totaling \$109,330,269 in four rounds of grants awarded by the Global Fund. The total 5-year maximum for these grants is \$223,148,330. In addition, three countries – Rwanda, South Africa and Tanzania – have been approved for HIV/TB 2-year grants totaling \$81,869,831. The 5-year maximum for these grants is \$269,060,932. USAID works closely with the Global Fund. Our missions participate in the Country Coordinating Mechanisms, assist with grant proposal writing, and help countries prepare implementation and monitoring and evaluation plans for these grants. Through USAID partners such as the TB Coalition for Technical Assistance, PATH and others, technical assistance, capacity building and monitoring and evaluation are provided to help the grant-recipient countries to effectively implement and manage Global Fund grant-funded programs and activities.

The main challenge now is to strengthen the systems that deliver public health services by improving methods of controlling TB, especially in Africa where we must fight HIV and TB together. TB is the leading cause of death worldwide for persons living with AIDS, therefore we must ensure that all HIV-infected persons have access to prompt TB care. This means offering HIV testing and where possible anti-retroviral drugs to TB patients – while at the same time screening those infected with HIV for tuberculosis, and providing them effective TB treatment. We must move forward on expanding TB/HIV programs – and USAID is giving priority to this in our TB programs.

USAID currently supports programs to expand and strengthen DOTS in eleven African countries (Angola, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Nigeria, South Africa, Uganda, Malawi, Senegal, and Sudan).

This year USAID is beginning new assistance to the national Tuberculosis (TB) programs in Mozambique, Namibia, Tanzania, and Zambia. As all four countries are focus countries for The President's Emergency Plan for HIV/AIDS, the new TB resources will be used to strengthen DOTS programs and will complement funding for TB and HIV co-infection activities that are supported by the President's Emergency Plan.

USAID is committed to working with these important partners and others I will mention later to turn the tide against malaria, TB and other infectious diseases.

If we are to eliminate this virulent killer, not only must we remain vigilant, we must make continued commitments and investment so that hard-to-reach patients in Africa that are

most seriously affected by this disease have an improved chance to live and contribute to society.

We believe that we have the means to beat TB. Despite their limitations, our existing tools have enabled us to increase the number of TB cases being found and cured each year. And our increased investment in research and development offers the promise of new drugs, diagnostics and vaccines that can revolutionize TB control and eventually eliminate the disease as a threat to public health.

There was a time when the principal obstacle to TB control in developing countries was access to drugs. But this is no longer a valid reason or excuse. We must continue to strengthen laboratories to diagnose TB, train more health workers, mobilize communities, and to involve all providers in DOTS. And in Africa in particular, we must expand and scale up measures to address TB and HIV/AIDS co-infection.

Malaria

Malaria deaths increased during the 1980s and early 1990s corresponding with treatment failures related to drug resistance. In response, the global community worked with African countries to change to more effective malaria drugs. At the same time, USAID funded research on options for prevention that led to the development of insecticide treated nets as an effective means to get insecticides into peoples homes and tested the safety and efficacy of an extract of *Artemisia annua*, or wormwood plant to create an extremely effective new Artemisinin-based combination treatment.

The U.S. Agency for International Development's programs are making an impact – under five mortality rates are starting to decline in several African countries where malaria interventions have been put to work. Insecticide treated nets are now being used by millions of families throughout Africa. Effective drugs will be increasingly available.

Comprehensive Strategy

USAID has in place a comprehensive strategy to battle malaria including, prevention, treatment, and malaria in pregnancy. This strategy also includes special efforts focusing on malaria in complex emergency settings. USAID programs for malaria control are based on a combination of internationally-agreed priority interventions and country-level needs for achieving the greatest public health impact, most importantly, the reduction of most of the deaths.

They are:

- Prompt and Effective Treatment with an anti-malarial drug within 24 hours of onset of fever;
- Prevention of malaria primarily through the use of insecticides - treated mosquito nets (ITNs) targeted to young children and pregnant women and spraying of homes;

- Provision of Intermittent Preventive Therapy (IPT) for pregnant women as a part of standard ante-natal services.

Each of these interventions is backed by solid evidence of effectiveness under program conditions in reducing the sickness and death from malaria, especially in Africa. The Abuja Targets, set at exceeding 60% coverage for each, were agreed upon by the Heads of State of African countries in 1999, and are the basis for international malaria control efforts in Africa..

Prevention of Malaria

The most effective way to prevent malaria is through the selective use of insecticides that kill the malaria transmitting mosquito. The international community needs to move aggressively to ensure their widest possible use to protect vulnerable populations from malaria. There are two options for getting insecticides into the homes of those most at risk: indoor residual spraying (IRS) and insecticide treated nets (ITNs). USAID supports the use of both IRS and ITNs. The real challenge is about getting the insecticide where it can do the most good to protect young children and pregnant women to save as many lives as possible. The choice of which intervention to use should be driven by local conditions and needs. There are 12 insecticides approved by the WHO for indoor spraying, one of which is DDT.

Indoor Residual Spraying

IRS is the organized, timely spraying of an insecticide on the inside walls of houses. It is designed to interrupt malaria transmission by killing adult female mosquitoes when they enter houses and rest on the walls after feeding, but before they can transmit the infection to another person.

USAID supports IRS and we are working with our missions to make sure there are no barriers to supporting it if appropriate in that particular setting. In countries in which circumstances support the use of IRS (including DDT), USAID has funded support to malaria control programs using DDT in Eritrea, Zambia, Ethiopia and Madagascar.

The IRS campaign in portions of Zambia, the (Copper Belt) continues to bear good and encouraging results and USAD/Zambia, the largest contributor to the malaria program, continuing to provide crucial support in both financial as well as technical support in the fight against malaria.

There is strong technical consensus that IRS is best suited for areas of unstable malaria, epidemic prone malaria (especially in Southern Africa and in the Horn of Africa), in urban settings when local transmission of malaria is well documented, and in refugee camps. In each of these settings IRS has important advantages: it has rapid and reliable short-term impact and can be targeted to communities at highest risk. IRS is, however, relatively demanding in terms of the logistics, infrastructure, skills, planning systems and coverage levels that are needed for a successful and effective operation. Nevertheless, such systems have been maintained successfully and effectively in some African countries, especially where there are large populations exposed to unstable malaria.

ITNs

Soaking bednets with insecticides has been shown extremely effective in protecting people from malaria and can be distributed to the most rural and most vulnerable populations in areas like West Africa and in rural villages where most deaths occur.

By consistently sleeping under an ITN, severe malaria has been shown to decrease by 45%, reduce premature births by 42% and cut all-cause child mortality by 17%–63 %. In most high-risk African settings, ITNs are unquestionably the most effective way that families can protect themselves from malaria.

ITNs can be deployed now in the desperately poor countries in Africa where malaria-related mortality is highest and can be put into the hands of parents who want to protect their children. As a consequence there is a strong international consensus that ITNs, particularly in these rural African settings with a high malaria burden, are the best primary prevention intervention. This is the reason USAID has constructed a prevention program that strongly emphasizes the use of ITNs.

Free Nets To Those Most In Need

USAID promotes targeting free or heavily subsidized ITNs for the most vulnerable (pregnant women and children under five years) and poorest populations – thus ensuring economics are not a barrier to net ownership. This evidence documenting how the use of bednets effectively protects against malaria is based on CDC field trials supported by USAID.

It is important that this targeted distribution of subsidized ITNs be combined with expanding commercial market distribution to develop systems for ensuring a commitment to the long-term availability of ITNs. Thus USAID supports expanding commercial market distribution, developing new technologies - especially in the area of long-lasting ITNs, and, the growing of ITN production capacity –to ensure adequate supplies of affordable and quality ITNs. There is recent evidence from countries where this combined approach of commercial marketing and targeted subsidies is in play that clearly demonstrates that household coverage with bednets is equally distributed across the socio-economic profile – from the poorest to the wealthiest families.

Recent data from several countries show dramatic increases in use of ITNs: ITN coverage increased from 11% to 43% in Senegal, 9% to 40% in Zambia, 0% to 21% in Ghana, and within the past year, 10% of Nigeria is now covered by an ITN – that is over 10 million people. In Tanzania and Malawi, UNICEF also has reported dramatic increases in ITN coverage. In all these cases, surveys point to a significant proportion of the nets being used by the primary target groups of children under five and pregnant women. There is equity in coverage across socio-economic strata.

Further, new technologies now provide long-lasting nets and treatments that remove the necessity for retreatment. The increasing availability of long-lasting insecticide treated nets (LLINs) which have an effective lifespan of about four years without the need for

retreatment, will remove this requirement altogether.

These technical developments, the product of committed commercial sector engagement with Roll Back Malaria partners, render nets even more cost-effective than before: more affordable, more easily used, and more effective. ITNs also have an additional advantage. Studies show some protection of children who live nearby a net, as opposed to IRS where there is no added protection.

Commercial Partnerships to Build Sustainability

ITNs can be delivered through a variety of channels – public sector, NGOs, community groups, and the commercial sector – and can be readily added to existing services, such as antenatal services, or immunization programs. For this reason, ITNs are generally thought to be a very practical and effective means for protecting the large and dispersed populations of highly endemic malaria countries. ITNs have also been demonstrated to be highly deployable in rural Africa.

USAID has developed innovative models for the delivery of highly subsidized or free ITNs in collaboration with national malaria control programs in Ghana, Senegal and Zambia, as well as UNICEF, DfID, IFRC, NGOs and private sector partners such as ExxonMobil. With UNICEF this involves delivery of subsidized ITNs linked to routine immunization; with the Red Cross, ITNs are provided at no cost as part of targeted measles campaigns, and with ExxonMobil, the nets are delivered via a heavily subsidized voucher program through antenatal clinics.

USAID also partners with 13 major commercial firms (representing over 80 percent of the global capacity to produce and distribute ITNs) called NetMark. It is an innovative program that is working to share the risks of developing ITN markets, to identify and reduce barriers to effective engagement of the commercial sector, and to create demand, thereby expanding the availability of affordable nets. In five African nations, the program has helped eliminate taxes and tariffs. Expansion is scheduled to occur in several African countries, including possibly Kenya, Tanzania, South Africa, Ethiopia, Uganda and Malawi. This effort, joined with that of the many Roll Back Malaria partners to scale-up ITN access and use throughout Africa, can reduce malaria deaths by one million annually.

We hope that this successful cooperation with the commercial sector for insecticide-treated netting will serve as a model for future cooperation with the commercial sector in other parts of the world and with other health related products.

USAID is investing in building the capacity of African distributors and their suppliers to distribute and promote ITNs on a national scale. Strategic investments are made to support companies willing to spend its own money to expand through a matching fund scheme, while generic behavior change communication campaigns create demand on a national scale. The main barriers to scale up with ITNs have been changing residents' attitudes and behavior, cost of the nets, and limited distribution systems. To overcome these barriers, USAID is supporting targeted distribution of free or highly subsidized ITNs to children

under 5 and pregnant women, extensive social marketing efforts and is working closely with net manufacturers and distributors in many African countries. Such practice was unknown to most rural African populations until the late 1990s.

As a consequence of these efforts we are on a trajectory to provide more than three million ITNs in 2004. USAID anticipates that sales of ITNs in seven target countries in 2005 will at least double and could reach seven million.

Artemisinin combination treatment (ACT)

Until recently drugs like chloroquine, proguanil, and doxycycline cured the disease. But drug-resistant strains emerged, lowering the effect of these drugs. As drug resistance increases, the choice of first- and second-line drugs for malaria treatment has become much more difficult. Only a limited number of alternative drugs are available and there is little economic incentive for new drug discovery and development, given its high cost and the fact that malaria predominantly affects the world's poorest nations. Furthermore, in many malarious areas, a majority of the population does not have ready access to malaria treatment and those drugs that are available may be of substandard quality.

Since 1998, we have backed safety and efficacy testing of artemisinin combination treatment (ACT) in Africa. ACT is a three-day treatment made from the extract of *Artemisia annua*, or wormwood, a plant that until recently grew only in Vietnam and China. Combining artemisinin with another drug also means that there are two modes of acting, so if 95 percent of the infection is cleared with the artemisinin, the rest is taken care of by the other drug.

Since 2001, 40 countries, including 20 African nations, have switched from old drugs to ACT. An estimated 15 million malaria cases were treated with the drug in 2003, and demand for ACT will rise to 150 million treatments by 2007. But supply of this drug is limited. This will change later this year, when, because of a USAID/WHO partnership with agricultural producers in Africa, African-grown artemisinin hits the market. USAID is working with the Global Fund to make funding available for ACTs and working with 25 countries in Africa to complete the legwork to roll-out ACTs.

Worldwide demand for artemisinin and its derivatives is expected to increase to 150 million treatments (up from 50 treatments in 2004). This forecasted increase has to-date outstripped the worldwide production capacity for ACTs leading to shortfalls in supplies. In response, USAID is supporting efforts to increase the cultivation in east Africa of *Artemisia annua*, the plant from which artemisinin is extracted, to increase availability of the raw product.

Artemisia annua has been successfully grown on both an experimental and commercial basis in both Kenya and Tanzania. Through the World Health Organization, USAID entered into an agreement with TechnoServe, an east-African agricultural concern to increase agricultural production in these countries.

In January, USAID helped plant 450 hectares of *Artemisia annua* in Kenya. And this month, another 450 hectares of the life-saving plant are taking root in Tanzania. Diversifying the location where the plant is grown will allow more drugs to be dispatched around the world faster. Because of the rich soil and warm climate, the African plant produces as much as four times more extract than its Asian sister, treating far more cases.

Through cultivation of the annual herb *Artemisia annua*, African farmers and estates can make a significant contribution to the worldwide supply of artemisinin.

USAID is presently working with 25 Global Fund recipient countries to prepare detailed plans for the introduction of ACT over the next year. Introducing artemisinin to Africa we will not only save millions of lives, but will also provide employment and bring about better opportunities for thousands of farmers. The new crop has been welcomed by Kenyan farmers, particularly coffee-growers, who have seen the value of their once prized commodity plummet to all-time lows in recent years. It will also provide some competition to the market and hopefully lead to lower prices.

USAID is strengthening national drug regulatory authorities. The aim is to improve the manufacturing of pharmaceuticals through good manufacturing practices, including drug quality control in national malaria programs.

USAID, in addition, is actively working with pharmaceutical companies to upgrade their ACT production capacity in order to increase the pool of companies manufacturing WHO approved ACTs. By 2006 it is expected that worldwide supplies of ACTs will be in line with demand. In the interim, strategic targeting of ACTs will be required to ensure that those countries with high levels of drug resistance have adequate drug supplies.

Prevention of Malaria in Pregnancy

Each year, more than 30 million African women become pregnant in malaria-endemic areas and are at risk for *Plasmodium falciparum* malaria infection during pregnancy. Most women live in areas with **year-round** malaria transmission, where the infection during pregnancy leads to anemia in the mother and the presence of parasites in the placenta. The resulting impairment of fetal nutrition contributing to low birth weight (LBW) is a leading cause of young infant deaths and development in Africa. HIV infection diminishes even more a pregnant woman's ability to control malaria infections. The prevalence and intensity of malaria infection during pregnancy is higher in women who are HIV-infected. Women with HIV infection are more likely to have symptomatic infections and to have an increased risk for malaria-associated adverse birth outcomes.

WHO has recommended intermittent preventive treatment (IPT) using the antimalarial drug, sulfadoxine-pyrimethamine (SP), as the preferred approach to reduce the adverse consequences of malaria during pregnancy in areas with **year-round** transmission. Since more than 70% of pregnant women in Africa attend antenatal clinics, Provision of safe and effective antimalarial drugs in treatment doses can be easily linked to antenatal clinic visits. The potential of IPT to attain high levels of program coverage and its benefit in reducing maternal anemia and LBW makes it a preferred strategy in sub-Saharan Africa.

In HIV-negative pregnant women, two doses of IPT provide adequate protection, but a minimum of three doses appears to be necessary in HIV positive women.

USAID played a key role in supporting the original studies in Africa that documented the efficacy of IPT in preventing the impact of malaria on both HIV positive and HIV negative pregnant women and their babies. Many countries have already changed their policies to incorporate IPT. Currently, through a coalition of partners, USAID is assisting ministries of health in about 10 African countries to implement IPT and distribute ITNs as part of a package of health interventions at the antenatal clinic level. Over the last year this technical assistance has contributed significantly to revision of outdated policies in Senegal, Ghana, Rwanda, and Zambia and to increased implementation of revised policies in DRC, Tanzania, and Kenya. Among women attending antenatal services in Tanzania, delivery of intermittent preventive therapy has increased from below 30 percent to over 60 percent.

Expanding Global Network

No one agency can do it all. The international efforts to fight malaria and TB are largely coordinated global partnerships that includes leaders from across the world, health institutions, the World Health Organization (WHO), UNICEF, World Bank, UNDP, multi-lateral agencies, international, national and local NGOs, and the private sector. We are a key partners as well in this Roll Back Malaria Partnership and the Global STOP TB Partnership.

USAID also has developed strong partnerships with many companies, bringing in private dollar side by side to support public programs. USAID is committed to reaching out beyond our traditional partners to find able and creative organizations, particularly those that are faith-based and community-based.

And with so many new partners, the coordination of our efforts becomes even more critical. This is as true among the U.S. government agencies as it is among our international partners, including the new Global Fund. Coordination efforts must occur at two levels: at headquarters and in the countries we are assisting. These actors are fulfilling unique roles – roles only they can perform due to their expertise, positions and responsibilities.

- USAID, HHS and CDC also work closely to fight these public health threats, and are coordinating with many others in the Roll Back Malaria Partnership and the Global STOP TB Partnership. USAID conducts annual planning meetings with the CDC and has an Interagency Agreement (IAA) with CDC for specific malaria and TB prevention and control activities. In Stop TB – the Agency is a member of the Partnership’s coordinating board and USAID technical personnel are members of all STOP TB technical working groups. USAID’s priorities are consistent with those of Stop TB. These efforts are well organized and coordinated and benefit from country and leading technical agency.

- USAID missions work closely with the Global Fund to Fight AIDS, TB and Malaria (GFATM) by leveraging mission funded programs with the substantial funding provided by the GFATM. Through the **Global Fund**, USAID and international partners have come together to combine financial, technical, management, and other expertise to reduce the public health impact of malaria and TB. Over the past three years, the U.S. government has contributed \$623 million to the Global Fund, and has appropriated up to \$547 million this year. We committed through our board participation and technical review panel in country technical assistance helping the GF succeed in HIV/AIDS, TB and malaria.
- Research institutions and pharmaceutical companies can develop improved treatments and interventions to help protect us against malaria and its impacts.
- Community- and faith-based organizations and other NGOs extend deeply into many of the most rural areas, reaching societies and cultures to ensure health care services and malaria treatments and interventions get to hard-to-reach populations.
- National governments have especially important roles to play with specific, attainable steps to reducing the impacts of malaria – steps that only they can take. The international donor community, in partnership with developing country partners, can ensure that technical and financial resources are allocated where they will be most effective.

USAID is focusing on the best ways to save the lives of millions from malaria's grip. Too many lives are at stake. Collectively, we must gather our will and our resources to stop the spread of this deadly disease.