DRAFT
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I want to express my appreciation to the Subcommittee on Federal Financial Management, Government Information, and International Security for the opportunity to express my views on the critical inputs that are currently required to make progress in controlling the health toll of malaria, particularly in Africa.

I am concerned that at the golden moment when support for malaria control in Africa is increasing, the support is so fragmented that in 5 years the confidence of national leaders and international donors in the soundness of investing in malaria control will have waned due to lack of dramatic, well-documented progress. It is within our grasp, yet we are arguably squandering the opportunity. Recently a Minister of Health in Africa said to me pointedly, "don't tell us what to do, help us do it"! He made an important point for all of us.

Malaria Control: We Know What to Do

Malaria is the leading killer of children in Africa, accounting for approximately 20 percent of deaths in children under the age of five. Africa's malaria burden is worsening, and many factors, including expanding drug resistance, faltering health services, and the growing impact of HIV/AIDS on health services, contribute to malaria's growing toll on the continent's health and economic potential.

Malaria strains health systems, particularly in Africa, where it accounts for between 30 and 50 percent of hospital admissions and up to 50 percent of outpatient visits in high-transmission areas. Malaria costs Africa more than US$12 billion annually. It has slowed economic growth in African countries by 1.3 percent per year, the compounded effects of which are a gross domestic product level up to 32 percent lower than it would have been if malaria been eliminated in 1960.

During the past decade several interventions have proven highly effective in reducing malaria burden. These interventions include: (1) use of insecticide treated nets (ITNs), especially for infants and pregnant women; (2) intermittent preventive treatment in pregnant women (IPTp); and (3) prompt and effective case management (PECM), particularly among children who have fallen ill from the disease.

Indoor residual spraying (IRS) has been used to control transmission in several southern Africa settings characterized by low intensity seasonal risk. The World Health Organization (WHO) has advocated IRS use where public health infrastructure is adequately developed and financed. IRS is a valuable component of the malaria control armamentarium.

Seizing the Moment: Demonstrating the Impact of Malaria Control in Africa

In Africa it is time for focused support to national governments to rapidly raise malaria program coverage to benefit minimally 75% of vulnerable populations. The global community has the tools to accomplish this in short order. What are required are global leadership and commitment, effective management and monitoring support to countries to assure that critical resources, such as the Global Fund, are employed effectively. The potential health and economic benefits will accrue rapidly and will be enormous.

During the past 5 years there has been a dramatic infusion of financial support for national malaria control programming and the procurement of insecticide treated nets and malaria drugs. The Global Fund alone has allocated over $300 million for programming just in Africa. Further, national governments are beginning to prioritize malaria control in national budgets.

The concern is that national expansion of malaria programming in Africa has been sluggish despite highly effective tools and substantial funding. Recent surveys indicate that current national coverage levels in Africa for each of the interventions range from 5 to 40 percent.

The key requirements for scaling up coverage of malaria control programs include:

- A durable political commitment to malaria control in African nations
- Effective national coordination of program partners and management of programming
- Adequate supplies and health sector staffing
- A sustainable financial base for funding malaria control programs

There are controversial issues in malaria control (e.g., which drugs to use where, what means of using insecticides, etc.) but most of these controversies are fueled by the widespread inaction and lack of measured progress to date rather than specific controversy over the potential effectiveness of the use of the available tools. In reality, all of the controversies in the press about these tools undermine the task of bringing malaria under control.

The Opportunity to get Malaria Control Right, and the Critical Role for the US Government

Based on my 30 years experience working on malaria in Africa with various agencies, and currently having the unique opportunity to work with countries committed to making dramatic progress in malaria programming at the national scale, I want to suggest several priorities for the organization and content of U.S. Government support.

Several themes need to be stressed:

- Focus on reducing deaths and illness

- Work on a national scale (i.e., the potential for success has already been shown in pilot projects and district-level demonstrations)
- Support the development of national program management capacity
- Focus on a balance between prevention and treatment – that way, you minimize as much disease as possible and you limit the need for costly and difficult to deliver treatments
- Get coverage of the available, affordable, effective tools to over 80% of the population
- Stay evidence-based (do not ignore science; include/expand on the science basis for interventions and service delivery)
- Continue support for the development of promising new tools: potentially efficacious vaccines need further and final development; new antimalarial drug development is badly needed due to the inevitable development of drug resistance; new diagnostic tools are needed to accompany the use of drugs.

Building national success stories is a critical investment

In Africa we do not have well-documented examples of successful national malaria control programming. Malaria, while historically an enormous health and economic drain on African countries, is only beginning to be prioritized in national planning and budgeting. One point of view is that the focus of advocacy in the next few years should be to assure that there are several well documented national scope programming success examples to dispel the sense that malaria control is not possible. This implies focusing some resources on a limited number of countries. Further, investment in quality program evaluation and documentation of the health and economic impact of malaria control is vital.

More resources to support malaria control are critical

Malaria control at the national scale costs money. The commodities (nets, drugs, insecticides) costs alone are increasing dramatically. Much attention has been paid to addressing the costs of the newest anti-malarial drugs and a coordinated global effort is urgently required to assure that countries will have effective drugs to combat malaria. The resources channeled by the Global Fund are covering a major amount of the needed monies, but more is needed. It is critically important to assure the continued and increased funding of the Global Fund and to assure parallel national support to optimize the effectiveness of these funds.

But, money is not enough for dramatic progress

A critical factor in determining the capacity of national government to scale up malaria program coverage is the national human and institutional capacity to manage malaria programming. National governments affected by malaria require assistance in strengthening of basic systems such as procurement, financial management, monitoring and evaluation. While we may be skeptical about funding to develop national capacity, the fact is that this is vital, it is time consuming, and it requires risk taking on the part of donors in that it relinquishes control. Strategic technical assistance in management systems to actually build national institutional capacity can work.

Malaria will be controlled by national governments

Malaria control is replete with pilot projects, district level trials and other sub-national efforts. These have created a better understanding of how to control malaria. It is now time for truly national scale implementation, whereby malaria is fully integrated into national health planning and financing mechanisms. Multi-land bilateral partners must adapt their funding mechanisms to support national capacity development and transfer defined authority to national governments and institutions. In particular, it will be important to assure that highly effective models are developed for donors to support national program implementation capacity. This implies a more balanced partnership between donors and national governments than has existed historically in malaria programming.

The US Government and institutions can be leaders in supporting malaria control in Africa

The enormous wealth of the United States and the technical resources in the US government agencies and private and academic institutions are far superior to any other bilateral donors in health. Certainly there are many easily identified short-comings to how well our resources have been harnessed in supporting developing countries. Malaria control in Africa represents an enormous opportunity for the US to do the right thing right. This requires some reforms, strengthening of what works, and balanced investments. USAID has too many mandates and constraints to nimbly address this changing opportunity for supporting malaria control.

While more money is required, the U.S. Government should not divert current investments in supporting the programmatic capacity of national governments. The U.S. should authorize additional monies for malaria commodities, and most of these should be channeled through the Global Fund. With equal commitment the U.S. Government should strengthen its support to national institutions and personnel. The range of partners involved in this support must be broadened to involve US universities and schools of public health, building on highly effective models such as instituted by the CDC Malaria Branch in recent years. Without this program support there is almost certainty that more money will not result in stronger programs or fewer deaths.

It is important to appreciate that the U.S. Government contribution to the Global Fund and its bilateral malaria program are not inherently separate investments. There is, in fact, a real opportunity to forge a strategic alliance between the Global Fund and U.S. bilateral malaria program. Through both USAID and CDC, the U.S. has a strong comparative advantage to building capacity and strengthening nationals to deliver effective services. No other bilateral program in the world can draw on the wealth of expertise that is available to U.S. Government bilateral assistance program.

Pending legislation to strengthen the US Government role in malaria control needs to be carefully reconsidered

In general several of the structural changes to support malaria control proposed in The Elimination of Neglected Diseases Bill have merit. The appointment of a malaria coordinator, the creation of a Malaria Scientific Review Board, identification of CDC as key agency on public health initiatives, the requirement for a strategic plan, and the emphasis on reduction in disease burden are excellent. However, some the proposed components should be strengthened or eliminated, and this could result in a truly major step forward in the U.S. global health leadership.

The current bill language emphasizes procurement of specific commodities, and is highly prescriptive in placing emphasis on specific interventions, e.g. indoor residual spraying or ITNs. The requirement for 55% of funding to be applied to indoor residual spraying is potentially a self-defeating and limiting approach. The important discussion should not be on DDT or the efficacy of IRS. It could appear that the U.S. is dictating to countries what their national policy shall be. Second, and more importantly, while the U.S. may provide indoor residual spraying materials, who will provide the infrastructure support required to deliver indoor residual spraying? This stipulation might preclude the most malarious areas of Africa from accessing malaria control support.

The exclusion of chloroquine and sulfadoxine-pyrimethamine (S/P) from the procurement list is ill-advised. Chloroquine is still the therapy of choice for *P. vivax,* and S/P is still highly efficacious in West Africa and the drug of choice in most of Africa for IPT during pregnancy (per WHO policy guidelines).

The limitation on technical assistance to countries is also an unfortunate approach, in that countries are, in fact, most in need of assistance to be able to use effectively all the money that is pouring in at this time. Key U.S. agencies such as CDC have some of the finest programming expertise globally and legislation and appropriations would hopefully foster making that U.S. resource more available to malaria-endemic countries.

Conclusion

Malaria control in Africa is the lowest hanging public health fruit of our generation. With additional resources and concerted support of national capacity to effectively program those resources dramatic reductions in childhood deaths could be achieved in as short as 2-3 years. The tools to accomplish this are available and resources are currently increasing to give confidence that progress is possible. The U.S. Government must exert leadership both in terms of financing and technical assistance. More inclusive involvement of public and private sector institutions and better coordination of U.S. Government contributions with those of other major funders are urgently needed.