

Opinion

Smartest ways to fight malaria

By Bjorn Lomborg

HEALTHY societies are productive societies and Ghana is making great progress. In many areas, from improved nutrition and poverty reduction to disease prevention, the country is witnessing significant development.

However, malaria remains a major public health concern.

With one of every five citizens affected every year, it is the leading cause of death and disease and a great toll on all of society.

Malaria places an enormous demand on the country's health system and decreases productivity, with an estimated annual economic burden of one per cent to two per cent of GDP.

Of all workdays lost in Ghana, 40 per cent are due to malaria, and 13.5 per cent of individuals in the prime working ages between 15 and 49 contract it annually.

An increase in malaria incidence of one per cent has been shown to reduce economic growth by 0.41 per cent, and the regions most affected by it have a much slower rate of development than the national average.

Ghana priorities

Malaria prevention and treatment methods have made great advances in the past decades, and new research can point to the most cost-effective measures. This is what Ghana

Priorities, a collaboration between the National Development Planning Commission (NDPC) and the Copenhagen Consensus, is doing.

Since early last year, 28 teams of top economists have been working to calculate the economic, social and environmental costs and benefits of more than 80 initiatives identified by the Ministry of Finance (MoF) and the Ministry of Planning (MoP) in areas ranging from education to housing and

health care. The goal is to help the government and society set priorities by discovering where public spending could do the most good.

In the fight against malaria, where should

resources be increased first to reap the biggest social benefit?

Edward Nketiah-Amponsah from the University of Ghana, Timothy Awine and Sheetal Silal from the University of Cape Town, and Brad Wong from Copenhagen Consensus studied the best current initiatives to limit the spread of the disease.

They calculated the benefit of scaling up three strategies already in use: diagnostic testing of suspected malaria cases at health facilities, distribution of insecticide-treated bed nets, and seasonal malaria chemoprevention.

Bed nets

For years, the government has prioritised increasing the use of bed nets to prevent the spread of the disease, with great results. The first analysed initiative expects to increase

the number of bed nets distributed, with the goal of reaching 90 per cent coverage in 2023 and maintaining it thereafter.

This would require extra funding for the National Malaria Control Programme (NMCP) of GH¢45 million initially, with a total cost of GH¢42 million by 2030.

Bed nets are relatively inexpensive, but making coverage near-universal would have a big impact: 12.9 million cases of uncomplicated malaria, some 700,000 severe cases, and 40,000 deaths can be avoided in the time frame studied.

The total social and economic benefits will be 44 times the original investment, at about GH¢19,000 million.

Testing

Among the initiatives analysed, increasing testing to confirm suspected malaria cases in health facilities will bring the highest benefits for every cedi spent.

Testing is currently targeted at 90 per cent of cases and helps limit indiscriminate use of anti-malarial treatment, which saves money and protects the public through more accurate diagnoses.

The study investigates an increase towards near-universal implementation by training health facility staff in the use of the right protocols and making improvements in the availability of equipment, as well as monitoring. Reaching the last 10 per cent of coverage will be significantly more difficult than the previous expansion of testing, with the authors estimating that reaching these last cases will be 10 times as costly per suspected patient compared to what Ghana has paid so far.

Even with these large extra

BCR Summary Table

Intervention	Benefit GHS m	Cost GHS m	BCR
Distribute and sustain 90 per cent coverage of LLIN	19,000	442	44
Seasonal Malaria Chemoprevention to 90 per cent of children in the Guinea Savannah zone	2,300	167	14
Near universal coverage of testing and treatment at health facilities	11,600	87	134

Notes: All figures assume an 8 per cent discount rate.

costs, the return on investment from this intervention will be massive.

By properly diagnosing malaria and giving early treatment to those infected, 435,000 severe cases and close to 25,000 deaths can be avoided between now and 2030.

The study also suggests savings in drugs and time worth around GH¢17 for every

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suspected malaria case. The total value of benefits by 2030 will be a phenomenal GH¢11,600 million. Every cedi spent will create benefits worth GH¢134.

Children

Young children are the most

vulnerable to malaria. Seasonal malaria chemoprevention targeted at children up to five years of age is another strategy that has brought good results for the NMCP. The researchers considered increasing preventive treatment in the Guinea Savannah region to 90 per cent, to bring preventive medicine to up to 600,000 children.

This will require significant planning and human resources, but in total will help save more than 3,000 lives by 2030. The total benefit is calculated at GH¢2,300 million and the costs at GH¢167 million, meaning each cedi produces GH¢14 in social benefits — still a very respectable return.

Investments to ramp up malaria initiatives can be a very good way forward for Ghana, not only in saving lives, but in achieving higher productivity for the future. This study can help the Ministry of Health (MoH) spend extra resources to do the most good for Ghana.

The writer is the President of the Copenhagen Consensus & Visiting Professor at Copenhagen Business School.