

World Malaria Report 2008: A Billion-dollar Moment for a Centuries Old Disease?

To accelerate progress in malaria control, the 2005 World Health Assembly (WHA) set targets of >80% coverage for four key interventions: (i) long-lasting insecticidal nets (LLIN) for people at risk, (ii) appropriate anti-malarial drugs, especially artemisinin-based combination therapy (ACT) for patients with probable or confirmed malaria, (iii) indoor residual spraying of insecticide (IRS) for households at risk, and (iv) intermittent preventive treatment in pregnancy (IPT). The WHA further specified that, as a result of these interventions, malaria cases and deaths should be reduced by $\geq 50\%$ between 2000 and 2010, and by $\geq 75\%$ between 2005 and 2015(1).

In September this year, WHO released “World Malaria Report 2008” which uses data from routine surveillance (≈ 100 endemic countries) and household surveys (≈ 25 countries, mainly in Africa) to measure latest achievements related to malaria control(2). In five main chapters, 30 country profiles and seven annexes, the report describes: (a) the estimated burden of disease in each of the 109 countries and territories with malaria in 2006; (b) how WHO-recommended policies and strategies on malaria control have been adopted; (c) the progress made in implementing control measures; (d) the sources of funding for malaria control; and (e) recent evidence that interventions can reduce cases and deaths.

KEY FINDINGS

Global burden

According to the report, half of the world’s population is at risk of malaria. An estimated 247 million cases of malaria occurred in 2006, causing an estimated 881,000 deaths, mostly (91%) among African children. Majority (85%) of the deaths were

in children aged less than 5 years of age. A total of 109 countries were endemic for malaria in 2006, 45 within the WHO African region. South-East Asia (especially India) region accounted for 4% of deaths(2).

Impact of malaria control strategy

Some countries that have implemented aggressive programs of prevention and treatment, have reported significant reductions in the malaria burden. Eritrea, Rwanda, Sao Tome and Principe reported decline in the number of cases and deaths by 50% or more between 2000 and 2006–2007. In addition, 22 countries outside of Africa reported declines of 50% or more in malaria cases and deaths between 2000 and 2006(2).

Status of preventive interventions

In 2006, the number of LLINs distributed almost tripled to 36 million since 2004. Of 647 million people at risk in Africa, the portion covered by insecticide-treated nets (ITNs) rose from 3% in 2001 to 26% in 2006 and an estimated 39% in 2007(2). Despite this progress, coverage of nets and all other interventions are substantially below the WHA target of 80% by 2010. Usage was also low with only 23% of children and 27% of pregnant women sleeping under an ITN. Indoor insecticide spraying in 2006 protected more than 100 million people, including 70 million in India and 22 million in Africa, where it appeared linked to a decline in cases in Namibia, South Africa and Swaziland. Although 38% of African under-five children with fever got some anti-malarial drug in 2006, only 3% sick children were given the more effective ACT despite a big increase in supply. Only 18% of pregnant women in 16 African countries received anti-malarial medicine as a preventive treatment to reduce the risk of babies with low birth weight(2).

SHORTCOMINGS

There are several inadequacies in the report as far as incidence and mortality data are concerned. Reliable

data is missing from many countries and, therefore, different methods have been used to estimate these figures and these varied by region and even by country. For example, in most African countries estimates were based on local climate conditions, which correlate with malaria risk, and the average rate at which people become ill with the disease in the area(1). The data provided by National Malaria Control Programs are also inaccurate as in some countries, reported cases include patients that are diagnosed clinically but do not have smear positive malaria. The report's estimate of deaths and malaria cases are considerably lower than the estimates of 2005 World Malaria Report but this seems primarily to be due to a refinement of calculation methods, especially for Asia.

NEED OF THE HOUR

As quite clearly reflected in the report, the progress of global efforts in malaria control is only modest. There are many areas that call for urgent improvement. Surveillance systems are weak in endemic countries of Africa. The coverage of preventive and curative interventions is still substantially below the set targets in most countries. However, more disturbing is the finding of high incidence of underutilization of key interventions in many countries. This clearly reflects lack of political will by governments of many such countries.

After a lapse of almost 40 years, malaria eradication is back on the global health agenda and key organizations are starting to debate the pros and cons of redefining eradication as an explicit goal of malaria control efforts(3). There is more money than ever being pumped into this initiative to give impetus

to every constituent of the program, be it purchase of medicines or investment in research to develop better control tools, including a vaccine. These developments encouraged Director General of WHO to dub the current situation as "*the billion-dollar moment for a centuries old disease!*" No doubt, Malaria's moment has come, but success in control, let alone eradication, demands a renewed commitment in every field- from implementation of existing interventions to proper utilization to basic research related to drug and insecticide resistance. Although we lack sufficient knowledge, systems and tools to eradicate malaria today, we do have a window of political will and financial resources to refocus on the goal of effective control through universal coverage of appropriate interventions.

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