World Health Organization

Malaria

Fact Sheet: World Malaria Report 2015

9 December 2015

This fact sheet includes key estimates from the World Malaria Report 2015. The report draws on data from 95 countries and territories with ongoing malaria transmission, and a further 6 countries that have recently eliminated malaria.

Global disease burden in 2015

According to the latest estimates from WHO, there were 214 million new cases of malaria worldwide in 2015 (range 149–303 million). The African Region accounted for most global cases of malaria (88%), followed by the South-East Asia Region (10%) and the Eastern Mediterranean Region (2%).

In 2015, there were an estimated 438 000 malaria deaths (range 236 000–635 000) worldwide. Most of these deaths occurred in the African Region (90%), followed by the South-East Asia Region (7%) and the Eastern Mediterranean Region (2%).

Between 2000 and 2015, malaria incidence rates (new malaria cases) fell by 37% globally, and by 42% in Africa. During this same period, malaria mortality rates fell by 60% globally and by 66% in the African Region.

Other regions have achieved impressive reductions in their malaria burden. Since 2000, the malaria mortality rate declined by 72% in the Region of the Americas, by 65% in the Western Pacific Region, by 64% in the Eastern Mediterranean Region, and by 49% in the South-East Asia Region. For the first time, the European Region reported zero indigenous cases of malaria in 2015.

Children under five are particularly susceptible to malaria illness, infection and death. In 2015, malaria killed an estimated 306 000 under-fives globally, including 292 000 children in the African Region. Between 2000 and 2015, the mortality rate among children under five fell by 65% worldwide and by 71% in Africa.

Country-level trends

Since 2000, there has been a significant increase in the number of countries that have moved towards malaria elimination. Of the 106 countries with ongoing malaria transmission in 2000, 57 achieved reductions in new malaria cases of least 75% by 2015. Eighteen countries reduced their malaria cases by 50-75%.

In 2015, 33 countries reported fewer than 1000 cases of malaria. In 2014, 16 countries reported zero indigenous cases of the disease: Argentina, Armenia, Azerbaijan, Costa Rica, Iraq, Georgia, Kyrgyzstan, Morocco, Oman, Paraguay, Sri Lanka, Tajikistan, Turkey, Turkmenistan, United Arab Emirates and Uzbekistan.

In 2015, the global burden of malaria remained heavily concentrated in 15 countries, mainly in Africa. Together, these countries account for an estimated 80% of global malaria cases and 78% of deaths. Since 2000, progress in reducing malaria incidence in these high burden countries (32%) has lagged behind that of other countries globally (53%).

Trends in the scale-up of malaria interventions

Vector control is the main way to prevent and reduce malaria transmission. Two forms of vector control are effective in a wide range of circumstances: insecticide-treated mosquito nets (ITNs) and indoor residual spraying (IRS).

- Over the last 15 years, there has been a major increase in coverage of ITNs in sub-Saharan Africa. By 2014, more than half (56%) of the population had access to an ITN, compared to less than 2% in 2000.
- In 2014, 116 million people globally were protected by indoor residual spraying (IRS), including 50 million people in Africa. About 6% of the population at risk of malaria in Africa live in households that are protected by IRS.

WHO recommends diagnostic testing for all people with suspected malaria *before* treatment is administered. Rapid diagnostic testing (RDTs), introduced widely over the past decade, has made it easier to swiftly distinguish between malarial and non-malarial fevers, enabling timely and appropriate treatment.

- Between 2005 and 2014, a sharp increase in diagnostic testing for malaria was reported in the African Region: from 36% of suspected malaria cases in 2005 to 65% of suspected cases.
- Sales of RDTs reported by manufacturers rose from fewer than 50 million globally in 2008 to 314 million in 2014.

Artemisinin-based combination therapies (ACTs) are highly effective against *P. falciparum*, the most prevalent and lethal malaria parasite affecting humans. Globally, the number of ACT treatment courses procured from manufacturers increased from 11 million in 2005 to 337 million in 2014. The African Region accounted for most (98%) manufacturer deliveries of ACTs in 2014.

Malaria infection during pregnancy carries substantial risks for the mother, her fetus and the newborn child. In Africa, the proportion of women who receive intermittent preventive treatment in pregnancy

(IPTp) for malaria has been increasing over time, but levels remain below national targets. In 2014, an estimated 15 million of the 28 million pregnant women at risk of malaria did not receive a single dose of IPTp.

Progress in adopting and rolling out preventive therapies for children has been even slower. As of 2014, six of the 15 countries where WHO recommends preventive therapies for children under five have adopted the treatment as national policy. Only one country, Chad, has adopted the recommended preventive therapy for infants.

Cases averted and cost savings

An estimated 663 million cases of malaria have been averted in sub-Saharan Africa since 2001 as a direct result of the scale-up of 3 key interventions: ITNs, ACTs and IRS. It is estimated that 69% of the 663 million fewer malaria cases attributable to interventions were due to the use of mosquito nets, 21% due to ACTs and 10% due to indoor spraying.

Across Africa, the prevention of new cases of malaria attributable to malaria control activities saved an estimated US $900 million in case management costs between 2001 and 2014. Insecticide-treated mosquito nets contributed the largest savings, followed by ACTs and indoor spraying.

Despite substantial costs savings, malaria has placed a heavy economic burden on health systems in Africa. Since 2000, the average annual cost of case management alone is estimated at nearly US$ 300 million. As malaria is concentrated in countries with comparatively low national incomes, the cost of treatment has been disproportionately borne by the most resource-constrained countries.

Insecticide and drug resistance

In many countries, progress in malaria control is threatened by the rapid development and spread of antimalarial drug resistance. To date, parasite resistance to artemisinin – the core compound of the best available antimalarial medicines – has been detected in 5 countries of the Greater Mekong subregion.

Mosquito resistance to insecticides is another growing concern. Since 2010, 60 of the 78 countries that monitor insecticide resistance have reported mosquito resistance to at least one insecticide used in nets and indoor spraying; of these, 49 reported resistance to two or more insecticide classes.

Progress towards global targets

The malaria-specific target of the Millennium Development Goals (target C) called for “halting and beginning to reverse the global incidence of malaria by 2015.” This target has been achieved, with a 37% global decline in malaria incidence since 2000.

In 2005, the World Health Assembly called for a 75% reduction in the global burden of malaria by 2015. Fifty-seven countries with malaria

transmission in 2000 reduced their malaria cases by 75% by 2015, in line with this target.

WHO response

To address remaining challenges in global malaria control and elimination, WHO has developed the *Global Technical Strategy for Malaria 2016-2030*. Adopted by the World Health Assembly in May 2015, the strategy provides a technical framework for all endemic countries as they work towards malaria control and elimination.

This Global Technical Strategy sets ambitious but achievable goals for 2030, including: reducing malaria case incidence by at least 90%; reducing malaria mortality rates by at least 90%; eliminating malaria in at least 35 countries; preventing a resurgence of malaria in all countries that are malaria-free.

To achieve these targets, annual funding for malaria will need to triple over the next 15-year period, from US$ 2.5 billion (current level of spending) to US$ 8.7 billion by 2030.

The fact sheet was updated 19 April 2016

Related links

World Malaria Report 2015

Global Technical Strategy for Malaria 2016–2030