

Distr.: General 9 April 2020

Original: English

Seventy-fourth session Agenda item 13 2001–2010: Decade to Roll Back Malaria in Developing Countries, Particularly in Africa

Consolidating gains and accelerating efforts to control and eliminate malaria in developing countries, particularly in Africa, by 2030

Note by the Secretary-General

20-05510 (E) 160420

The Secretary-General has the honour to transmit to the General Assembly the report of the Director General of the World Health Organization, submitted in accordance with Assembly resolution 73/337.



Report of the Director General of the World Health Organization on consolidating gains and accelerating efforts to control and eliminate malaria in developing countries, particularly in Africa, by 2030

Summary

The present report is submitted in accordance with General Assembly resolution 73/337. It provides a review of progress in the implementation of the resolution, focusing on the adoption and scaling-up of interventions recommended by the World Health Organization in malaria-endemic countries. It also serves to elaborate on the challenges limiting the full achievement of the targets and provides recommendations to ensure that progress towards achieving the goals of the Global Technical Strategy for Malaria 2016–2030 is accelerated in the coming years.

I. Introduction

1. While malaria is a preventable and treatable disease, it continues to have a devastating impact on the health and livelihood of people around the world. In 2018, there were an estimated 228 million cases of malaria and 405,000 malaria-related deaths in 89 countries. Children under the age of 5 years in sub-Saharan Africa account for approximately two thirds of global deaths from malaria.

2. The present report highlights progress and challenges in the control and elimination of malaria in the context of General Assembly resolution 73/337. It draws heavily on the *World Malaria Report 2019*, a World Health Organization (WHO) analysis based on the latest available data (2018) received from malaria-endemic countries and organizations supporting global efforts to combat malaria. Data from 2019 are being consolidated and reviewed by WHO.

3. In May 2015, the World Health Assembly endorsed the Global Technical Strategy for Malaria 2016–2030, a technical framework for all countries working to control and eliminate malaria. The Global Technical Strategy sets the goals of reducing malaria case incidence and death rates by at least 90 per cent by 2030 (compared with 2015 levels), eliminating malaria in at least 35 countries and preventing the re-establishment of malaria in all countries that are malaria-free. Near-term milestones for 2020 include reductions in case incidence and mortality rates of at least 40 per cent and the elimination of malaria in at least 10 countries. For 2025, the milestones are a reduction in case incidence and mortality rates of at least 75 per cent and the elimination of malaria in at least 20 countries.

4. Malaria is included under target 3.3 of the Sustainable Development Goals. The target is aimed at ending the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases by 2030. With respect to malaria, WHO interprets that target to mean the attainment of the goals of the Global Technical Strategy. Expanded access to malaria interventions will also contribute to the broader health and development agenda embodied in the Goals and to global efforts to move towards universal health coverage.

5. In recent years, the pace of progress in the global malaria response has levelled off and, in many countries hardest hit by the disease, malaria is on the rise. Critical 2020 targets of the Global Technical Strategy will be missed. To respond to the challenge, WHO and the RBM Partnership to End Malaria, a joint effort with partners and donors, catalysed, in 2018, a new approach aimed at intensifying support for countries that carry the highest burden of malaria. The "High burden to high impact" initiative is founded upon four pillars: political will to reduce malaria deaths; strategic information to drive impact; better guidance, policies and strategies; and a coordinated national malaria response.

6. The success of efforts to control and eliminate malaria is measured through an analysis of trends in the disease burden, access to key malaria control tools and progress towards the goals of the Global Technical Strategy. WHO recommends a multipronged strategy to reduce the malaria burden, including the scaling-up of vector control interventions, preventive therapies, diagnostic testing, quality-assured treatment and robust malaria surveillance.

II. Current situation

7. After many years of impressive reductions in the global malaria burden, as shown in the annual *World Malaria Report*, WHO noted a worrying trend in the *World Malaria Report 2017*: progress had stalled. The trend was confirmed in the 2018 and

2019 editions of the report. On a global scale, no gains were made in reducing malaria case incidence in the period 2014–2018.¹ The estimated number of malaria deaths in 2018 stood at 405,000, a number similar to the previous year. The world is not on a trajectory to achieve two near-term milestones of the Global Technical Strategy: reducing case incidence and mortality rates globally by at least 40 per cent by 2020. As such, progress towards the malaria-specific target of the Sustainable Development Goals is also off track.

8. The WHO African region accounted for 93 per cent of all malaria cases in 2018. More than half of all cases were in six countries: Nigeria (25 per cent of cases), Democratic Republic of the Congo (12 per cent), Uganda (5 per cent), Côte d'Ivoire, Mozambique and Niger (4 per cent each). About 3.4 per cent of all malaria cases were reported in the WHO South-East Asia region and 2 per cent in the WHO Eastern Mediterranean region. The WHO Western Pacific region and the WHO region of the Americas each accounted for fewer than 1 per cent of all cases.

9. In the *World Malaria Report 2019*, the need to increase the coverage of interventions for pregnant women and children in Africa, the two groups that bear the brunt of the disease, was highlighted. In 2018, an estimated 11 million pregnant women were infected with malaria in areas of moderate and high disease transmission in sub-Saharan Africa (about 29 per cent of all pregnancies in the region). As a result, nearly 900,000 children were born with a low birthweight, a leading cause of child mortality. Globally, children account for nearly 70 per cent of malaria-related deaths each year.

10. Despite a global levelling off in progress, many countries with a low burden of malaria are moving quickly towards elimination. At least 10 countries that are part of the WHO "E-2020 initiative" are on track to reach the 2020 elimination milestone of the Global Technical Strategy. In 2019, Algeria and Argentina were certified malaria-free by WHO. Globally, 37 countries and 1 territory have been awarded the certification by the WHO Director General.²

11. *Plasmodium falciparum* remained the most prevalent malaria parasite in the WHO African and South-East Asia regions in 2018, accounting for 99.7 per cent and 50 per cent of malaria cases, respectively. *P. vivax* was the predominant parasite in the WHO region of the Americas, representing 75 per cent of malaria cases. The *P. vivax* parasite accounted for approximately 35 per cent of malaria cases in the WHO Western Pacific region and for 29 per cent of cases in the WHO Eastern Mediterranean region.

Vector control

12. Since 2000, expanded access to and use of insecticide-treated mosquito nets have made a major contribution to the reductions seen in the global malaria burden. However, current levels of insecticide-treated net coverage still fall far short of needs: in 2018, only half of the people at risk of malaria in sub-Saharan Africa slept under an insecticide-treated net. Coverage of nets has improved only marginally since 2015 and has been at a standstill since 2016.

13. Spraying the inside walls of homes with insecticides (indoor residual spraying) is another powerful way to reduce malaria transmission. Globally, indoor residual spraying protection declined from a peak of 5 per cent in 2010 to 2 per cent in 2018, with decreases seen in all WHO regions apart from the WHO Eastern Mediterranean

¹ The global incidence rate of malaria (number of cases per 1,000 population) fell from 71 in 2010 to 57 in 2014 and remained at a similar level through 2018.

² See www.who.int/malaria/areas/elimination/malaria-free-countries/en/.

region. The declines are occurring as countries switch from using pyrethroid insecticides to more expensive alternatives to mitigate mosquito resistance to pyrethroids.

14. While the use of DDT in agriculture is banned under the Stockholm Convention on Persistent Organic Pollutants, countries can continue to use DDT for malaria vector control, provided that the guidelines and recommendations of WHO and the Stockholm Convention are met and until locally appropriate alternatives are available for a sustainable transition away from DDT. It should be noted, however, that while DDT continues to be covered by a WHO policy recommendation, no WHO pre-qualified product is available, which means that WHO cannot guarantee the safety, quality or anticipated entomological efficacy of any DDT product used for vector control. WHO issued a position statement on DDT in 2011; an updated statement is expected in 2020, following an in-depth review of the evidence base.

15. The WHO *Global Vector Control Response 2017–2030* contains a plan to support countries in mounting coordinated efforts to counter the increasing burden and threat of all vector-borne diseases, including malaria. The strategic approach proposed in the response was strongly supported by member States at the seventieth World Health Assembly, held in May 2017. Efforts to implement the strategy are ongoing.

Preventive therapies

16. Since 2012, seasonal malaria chemoprevention has been recommended by WHO for children aged from 3 to 59 months during the rainy season in the Sahel subregion of Africa. Providing effective antimalarial treatment at monthly intervals in that high-transmission period has a 75 per cent protective effect against malaria among children under 5 years of age. Of the 31 million children living in areas eligible for seasonal malaria chemoprevention in 2018, an estimated 19 million (62 per cent) were given the preventive malaria therapy.

17. Intermittent Preventive Treatment in Infants is another WHO-recommended approach for protecting young African children in malaria-affected areas from disease and death. In 2019, Sierra Leone became the first country to roll out the effective prevention strategy. The International Drug Purchase Facility, UNITAID, recently issued a call for proposals aimed at accelerating the adoption and scale-up of the treatment in sub-Saharan Africa, a move that responds to priorities outlined in the *World Malaria Report 2019*.

18. To protect women in areas of moderate and high malaria transmission in Africa, WHO recommends at least three doses of intermittent preventive treatment in pregnancy with the antimalarial drug sulfadoxine-pyrimethamine. Doses should be given at monthly intervals starting as early as possible in the second trimester during antenatal care visits. In 2018, 31 per cent of pregnant women in 36 African countries received the recommended three or more doses, up from 22 per cent in 2017 and 2 per cent in 2010. Notably, Burkina Faso and the United Republic of Tanzania achieved coverage (three doses) of more than 50 per cent in 2018. Insufficient access to antenatal care services is the main barrier to scaling up the treatment among pregnant women in Africa.

Diagnostic testing and treatment

19. Diagnosing malaria infection and providing prompt treatment with an effective antimalarial drug are critical to reducing malaria-related disease and death. Based on

surveys conducted in 29 sub-Saharan African countries, approximately 76 per cent of children with a fever who were brought in for care in the public health sector in the period 2015–2018 received a diagnostic test, compared with 48 per cent in the previous four-year period. The steep jump in coverage was, in large part, attributable to the greater availability of inexpensive and high-quality rapid diagnostic tests in the public sector. However, access to care remains low: a high proportion (36 per cent) of febrile children in sub-Saharan Africa do not receive any medical attention.

20. Integrated community case management is considered an effective strategy for bridging the gap in clinical care for three common childhood illnesses in sub-Saharan Africa – malaria, pneumonia and diarrhoea – in hard-to-reach and underserved communities. It involves the use of trained community health workers to deliver health services to such communities. Although 30 countries now implement integrated community case management at different levels, its roll-out in most sub-Saharan African countries remains poor, mainly owing to bottlenecks in health financing.

Biological threats to malaria control

21. WHO continues to closely monitor three biological threats to malaria control and elimination: (a) mosquito resistance to insecticides used in vector control tools; (b) parasite resistance to antimalarials; and (c) histidine-rich protein 2/3 (HRP2/3) gene deletions in *P. falciparum* parasites. All available data can be found on the WHO website through the Malaria Threats Map tool.³

Insecticide resistance

22. Global progress in malaria control is threatened by the rapid development and spread of mosquito resistance to the insecticides used in insecticide-treated nets and indoor residual spraying. Of the 81 malaria-endemic countries that provided data for the period from 2010 to 2018, resistance to at least one of the four insecticide classes in one malaria vector from one collection site was detected in 73 countries, an increase of 5 countries compared with the previous reporting period. In 26 countries, resistance was reported to all main insecticide classes.

23. Despite an increasing number of reports of insecticide resistance, evidence of its public health impact is scarce. A large WHO multi-country evaluation conducted over five years found that insecticide-treated nets continued to provide significant protection against malaria, even in areas in which mosquitoes had developed resistance to pyrethroids (the most common insecticide class used in such nets).⁴

24. To prevent an erosion of the impact of vector control tools, WHO has underscored the critical need for all malaria-endemic countries to develop and apply effective insecticide resistance management strategies. WHO also highlights the urgent need for new and improved malaria control tools in the global response to the disease.

Drug resistance

25. Protecting the efficacy of antimalarial drugs is another critical priority for WHO. Most studies conducted between 2010 and 2018 show that overall efficacy rates of WHO-recommended artemisinin-based combination therapies exceed 95 per cent outside the Greater Mekong subregion. Overall, the immediate threat of

³ Available at http://apps.who.int/malaria/maps/threats/.

⁴ The findings of the study are available at www.who.int/malaria/publications/atoz/insecticide-resistance-implications/en/.

antimalarial drug resistance is low, and drug failure is unlikely to have played a role in the recent global trends documented in the *World Malaria Report*.

26. Within the Greater Mekong subregion, partial resistance to artemisinin has been detected in five countries, namely, Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam over the past decade. Resistance to the partner drugs of artemisinin-based combination therapies has been detected in the same countries, except for Myanmar. To tackle the challenge, ministers of health of the subregion adopted the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015–2030); priority actions are targeted at areas in which multidrug-resistant parasites have been detected. At the seventy-first World Health Assembly, in May 2018, the ministers of health of the subregion renewed their political commitment to eliminating malaria in the subregion by 2030 by collectively signing a ministerial call for action.

27. With support from WHO and partners, all countries in the Greater Mekong subregion have aligned their national malaria plans with the WHO subregional strategy and are now reporting monthly malaria surveillance data to a regional data-sharing platform funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria; the platform stores surveillance data to facilitate information-sharing and analysis. By accelerating efforts to prevent, diagnose and treat malaria among at-risk communities, many countries in the subregion have seen a steep downward trend in their malaria burden: between 2012 and 2018, the number of malaria cases and deaths fell by 74 and 95 per cent, respectively, in the subregion. Notably, there has been a steep decline in cases of *P. falciparum* malaria, a primary target in view of the ongoing threat of antimalarial drug resistance.

Histidine-rich protein 2/3 gene deletions

28. In some countries, increasing levels of histidine-rich protein 2/3 (HRP2/3) gene deletions threaten the ability of health providers to diagnose and appropriately treat people infected with *P. falciparum* malaria. An absence of the gene enables parasites to evade detection by HRP2/3-based rapid diagnostic tests. Although the prevalence of HRP2/3 gene deletions in most countries with high malaria transmission remains low, further surveillance is required. WHO has developed a global response plan and is working with countries to measure the prevalence of gene deletions and to help them to address the implications for case management. Manufacturers are responding to the challenge by developing tests that target alternative antigens; at least three products will undergo WHO pre-qualification assessment in 2020.

"High burden to high impact" initiative

29. The "High burden to high impact" initiative was launched in 2018 by WHO and the RBM Partnership to End Malaria as a mechanism to accelerate progress in the countries that carry the highest burden of the disease. The response is being led by 11 countries that, together, accounted for approximately 70 per cent of the world's malaria burden in 2017: Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, India, Mali, Mozambique, Niger, Nigeria, Uganda and United Republic of Tanzania.

30. In those 11 countries – 10 in Africa, plus India – there were an estimated 155 million malaria cases in 2018. Two of the countries achieved significant reductions in the number of malaria cases in 2018 over the previous year: India (2.6 million fewer cases) and Uganda (1.5 million fewer cases). Two countries reported significant increases: Nigeria (3.4 million more cases) and Ghana (0.5 million more cases).

31. With support from WHO and its partners, the participating countries are collecting and analysing malaria data to better understand the geographic distribution of the disease and the potential impact of applying prioritized mixes of interventions. The analyses will enable countries to use available funds in a more effective, efficient and equitable way. Recognizing the heterogeneity of malaria within national borders, the countries are moving away from a one-size-fits all approach. Rather than applying the same approach everywhere, they are tailoring different mixes of WHO-recommended tools – vector control, chemoprevention, diagnostic testing and treatment – to local malaria contexts.

Elimination and certification

32. While progress in the global response to malaria has levelled off, a subset of countries with a low burden of malaria is moving swiftly towards elimination. According to the *World Malaria Report 2019*, 49 endemic countries reported fewer than 10,000 cases of the disease in 2018, up from 40 countries in 2010. Some 27 countries reported fewer than 100 cases of malaria – a strong indicator that elimination is within reach – up from 17 countries in 2010.

33. The "E-2020 initiative" is a WHO programme established in 2017 to support 21 malaria-eliminating countries, spanning five regions, in their efforts to reach one year of zero indigenous cases. WHO published a report in June 2019 charting progress and gaps across the 21 countries. According to the report, Iran (Islamic Republic of), Malaysia and Timor-Leste achieved zero indigenous cases of human malaria for the first time in 2018. Meanwhile, China and El Salvador reported zero indigenous cases of the disease for the second year in a row. At least 10 member countries are on track to reach the 2020 elimination milestone of the Global Technical Strategy: Algeria, Belize, Bhutan, Cabo Verde, China, El Salvador, Iran (Islamic Republic of), Malaysia, Suriname and Timor-Leste.

34. Countries that achieve at least three consecutive years of zero indigenous cases of malaria are eligible to apply for an official WHO certification of malaria elimination. In 2019, Algeria and Argentina were awarded the certification. Nine other countries have been certified malaria-free since 2000: United Arab Emirates (2007), Morocco (2010), Turkmenistan (2010), Armenia (2011), Maldives (2015), Kyrgyzstan (2016), Sri Lanka (2016), Paraguay (2018) and Uzbekistan (2018).

35. In 2017, WHO released a framework for malaria elimination to provide guidance on the activities and strategies required to achieve the elimination of malaria and prevent the re-establishment of transmission in all countries, regardless of where they lie on the spectrum of transmission intensity. It is intended to inform national strategic plans for the elimination of malaria and should be adapted to local contexts.

Eradication

36. In August 2016, WHO established a strategic advisory group on malaria eradication to advise it on the feasibility, potential strategies and cost of eradicating malaria over the next decades, building on the goals and targets set in the Global Technical Strategy and in the context of the Sustainable Development Goals. In 2017, the group developed an initial set of recommendations that clarified current terminology on "elimination" and "eradication" and affirmed the long-standing commitment of WHO to the goal of eradication. The recommendations were captured in a report to the WHO Executive Board at its 141st session. Members of the Board expressed strong appreciation to the WHO secretariat for the report and for the creation of the advisory group.

37. In August 2019, after a three-year study of trends and future projections, members of the advisory group released an executive summary of their main findings and recommendations. Key among them was a call for greater investment in the research and innovation of new tools. Other priorities included access to affordable, people-centred health services; a reliable, rapid and accurate surveillance and response system; and the development of national and subnational strategies tailored to local conditions. Members of the advisory group reaffirmed that malaria eradication was a goal worth pursuing, and that it would likely save millions of lives and generate a substantial return on investment. However, with currently available tools, they were unable to define a realistic target date for eradication, nor calculate what such an effort would cost. A detailed report, including the underlying analyses of their work, will be published in 2020.

Surveillance

38. A malaria surveillance system comprises the tools, procedures, people and structures that generate information on malaria cases and deaths. Strong surveillance systems enable national malaria control programmes to identify gaps in programme coverage and respond effectively to disease outbreaks, guide changes in programme planning so that resources are directed to populations most in need and regularly assess the impact of control measures in reducing disease burden.

39. Strengthening surveillance systems is a key pillar of the Global Technical Strategy, as part of which countries are urged to substantially expand malaria surveillance and transform it into an intervention that is as important as vector control, diagnostic testing and treatment. In addition to helping to accelerate progress towards the 2030 targets, increased investment in malaria surveillance will ease the current reliance on model-based disease estimation methods.

40. According to the *World Malaria Report 2019*, malaria case detection rates have improved gradually in recent years. In 2018, the estimated number of malaria cases captured by routine surveillance systems reached 54 per cent, up from 10 per cent in 2010 and 37 per cent in 2014. A lack of data from private health service providers continues to be a major surveillance bottleneck.

III. Global framework and partnerships

41. The Global Technical Strategy provides a technical framework for all malariaendemic countries that are working to control and eliminate malaria. It was developed in close consultation with the countries and their partners, and the process was overseen by the Malaria Policy Advisory Committee and a dedicated steering committee.

42. The document is built on three pillars: (a) ensure universal access to malaria prevention, diagnosis and treatment; (b) accelerate efforts towards the elimination and attainment of malaria-free status; and (c) transform malaria surveillance into a core intervention. The pillars are complemented by two supporting elements: (a) harnessing innovation and expanding research; and (b) strengthening the enabling environment.

43. The Global Technical Strategy provides the technical underpinning for the publication entitled *Action and Investment to Defeat Malaria 2016–2030: For a Malaria-Free World*, which was released in 2015. The focus of the publication was on supporting the implementation of the Global Technical Strategy through global advocacy, resource mobilization, partner harmonization and the engagement of the

public and private sectors. The publication illustrates how the positive effects of combating malaria can contribute to progress in achieving the wider sustainable development goals agenda.

Global partnership and political commitment

44. The Roll Back Malaria Partnership was transformed in 2016 to enhance its contribution to the fight against malaria. The strategic objectives of the rebranded RBM Partnership to End Malaria are: (a) to keep malaria high on the political and development agendas through a robust multi-sectoral approach, with a view to ensuring continued commitment and investment to achieve the milestones and targets of the Global Technical Strategy and the *Action and Investment to Defeat Malaria 2016–2030* report; (b) to promote and support regional approaches to combating malaria, anchored in existing political and economic platforms, such as regional economic communities; and (c) to promote and advocate sustainable malaria financing, with substantial increases in domestic financing.

45. African Heads of State continue to meet twice per year for a dedicated malaria forum at the African Union summit to reaffirm their commitment to eliminating malaria by 2030. At the thirty-first such summit meeting, in July 2018, the African Union Commission and the RBM Partnership to End Malaria launched "Zero malaria starts with me", a grass-roots pan-African campaign that empowers communities to take greater ownership of malaria prevention and care. Through the African Leaders Malaria Alliance, 49 Heads of State and Government work across national and regional borders to facilitate action and accountability in the region's efforts to combat malaria.

46. Countries in the Asia-Pacific region launched the Asia Pacific Leaders Malaria Alliance in October 2013, with a mission to support and facilitate the elimination of malaria throughout the region by 2030, or earlier if possible. WHO supports the secretariat of the Alliance in Singapore through the provision of technical guidance. The Leaders' Dashboard of the Alliance enables countries to track malaria elimination progress and achievements across all sectors; it was developed in close collaboration with WHO, drawing on indicators from the *World Malaria Report*.

47. The Special Programme for Research and Training in Tropical Diseases and the International Drug Purchase Facility, UNITAID, hosted by WHO, are other important partners in global efforts to combat malaria. WHO collaborates with the Special Programme on implementation research projects and with the International Drug Purchase Facility, UNITAID, on scaling up access to innovative health products.

48. The world's first malaria vaccine, known as RTS,S, is now reaching tens of thousands of African children in Ghana, Kenya and Malawi through a WHO-coordinated pilot programme. Beginning in 2019, ministries of health in each of the pilot countries led the vaccine introduction in selected areas, in collaboration with in-country and international partners, including WHO; PATH – Program for Appropriate Technology in Health, a non-profit organization; and GlaxoSmithKline, the vaccine manufacturer. Financing for the programme has been secured from three global health funding bodies: the Gavi Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria and the International Drug Purchase Facility, UNITAID. RTS,S has been shown in a rigorous phase 3 clinical trial to prevent 4 out of 10 malaria cases, including 3 out of 10 cases of severe forms of the disease. Evidence and experience from the pilot programme will inform future WHO policy decisions around the potential wider deployment of the vaccine in Africa.

IV. Funding needs

49. In 2018, total funding for malaria control and elimination reached an estimated \$2.7 billion, falling far short of the \$5 billion funding target of the Global Technical Strategy.

50. The Governments of malaria-endemic countries contributed approximately \$900 million, 30 per cent of total funding. Of the \$2.7 billion invested in 2018, \$1 billion was channelled through the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2018.

51. From 2010 to 2018, the United States of America provided approximately 37 per cent of total malaria funding. The United Kingdom of Great Britain and Northern Ireland contributed about 9 per cent of total funding, followed by France (4.5 per cent), Germany (3.2 per cent) and Japan (3.1 per cent). During the same period, an estimated \$9.4 billion in funding, 82 per cent of which came from international sources, was directed to the 11 countries participating in the "High burden to high impact" initiative. With the exception of India, direct domestic malaria investment in those countries remains low.

52. In its publication entitled *Step Up the Fight: Investment Case: Sixth Replenishment 2019*, issued in 2019, the Global Fund to Fight AIDS, Tuberculosis and Malaria called for a minimum fundraising target of \$14 billion to help save 16 million lives, cut mortality rates from HIV, tuberculosis and malaria, and build stronger health systems over a three-year period. The investment case came at a crucial moment, as funding shortfalls enabled HIV, tuberculosis and malaria to gain ground. In October 2019, the Global Fund succeeded in meeting its \$14 billion target, the largest amount ever raised for a multilateral health organization.

V. Recommendations

53. The findings set out in the *World Malaria Report* in recent years signal a clear need for greater investment in malaria control, particularly in countries in the WHO African region that have a high malaria burden. Countries and their development partners should prioritize support for the most vulnerable – pregnant women and children in Africa. Adequate and predictable financing is essential to sustaining progress in efforts to combat malaria. Malaria-endemic countries are urged to increase the domestic resources that they make available to combat the disease.

54. There is an urgent need to make more effective use of the tools currently available for the prevention, diagnosis and treatment of malaria, particularly in highburden settings. Gaps in the coverage of proven interventions must be found and filled. The "High burden to high impact" initiative is supporting countries in scaling up the appropriate mixes of interventions using accessible and affordable front-line services in primary health-care settings.

55. There is also a critical need to strengthen malaria surveillance and data quality in all malaria-endemic regions. Additional financing is required to support the sharing and analysis of best practices to address programmatic challenges, to improve monitoring and evaluation and to conduct regular financial planning and gap analysis.

56. To achieve better impact and to ensure that successes are sustained, countries are encouraged to increasingly adopt a multi-sectoral approach to malaria control and to build on synergies with other development priorities, including universal health coverage.

57. The contributions of the scientific community and the private sector remain essential: new products, such as improved diagnostic tools and vaccines, more effective medicines, new insecticides and more durable insecticide-treated bed nets, are fundamental to ensuring sustained progress in efforts to combat the disease. Progress in combating malaria can be maintained only through a concerted and focused multi-stakeholder effort, built on the foundation of political commitment, continuous scientific advancement and vigorous innovation.