

# WORLD MALARIA REPORT 2014



WHO GLOBAL MALARIA PROGRAMME

# WORLD MALARIA REPORT

2014



**World Health  
Organization**

WHO Library Cataloguing-in-Publication Data

World malaria report 2014.

1. Malaria - prevention and control. 2. Malaria - economics. 3. Malaria - epidemiology. 4. National Health Programs - utilization. 5. Insecticide-Treated Bednets. 6. Antimalarials - therapeutic use. 7. Drug Resistance. 8. Disease Vectors. 9. Malaria Vaccines. 10. Annual Reports. I. World Health Organization.

ISBN 978 92 4 156483 0

(NLM classification: WC 765)

© **World Health Organization 2014**

All rights reserved. Publications of the World Health Organization are available on the WHO website ([www.who.int](http://www.who.int)) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: [bookorders@who.int](mailto:bookorders@who.int)).

Requests for permission to reproduce or translate WHO publications – whether for sale or for non-commercial distribution – should be addressed to WHO Press through the WHO website ([www.who.int/about/licensing/copyright\\_form/en/index.html](http://www.who.int/about/licensing/copyright_form/en/index.html)).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Map production: WHO Global Malaria Programme and WHO Public Health Information and Geographic Information Systems.

Design and layout: [designisgood.info](http://designisgood.info) and [www.paprika-annecy.com](http://www.paprika-annecy.com)

Photo credits | Front cover and p. viii: © The Global Fund/Bruno Abarca | p. iv: © The Global Fund/John Rae

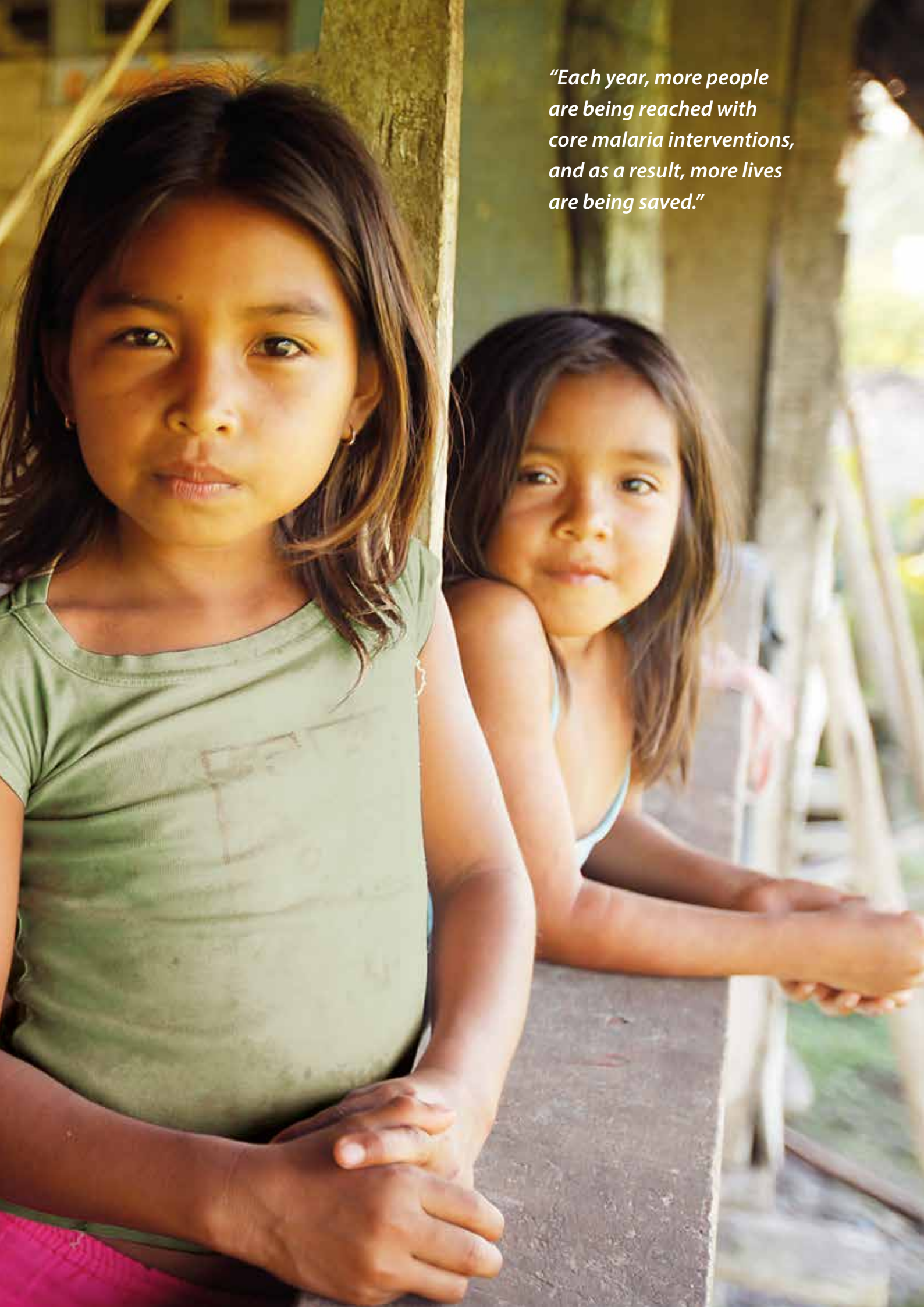
Please consult the WHO Global Malaria Programme website for the most up-to-date version of all documents ([www.who.int/malaria](http://www.who.int/malaria))

Printed in Switzerland

# CONTENTS

---

<b>Foreword</b>	<b>v</b>
<b>Acknowledgements</b>	<b>vi</b>
<b>Abbreviations</b>	<b>ix</b>
<b>Key Points</b>	<b>x</b>
<b>SECTION 1 Introduction</b>	<b>2</b>
1.1 The public health challenge posed by malaria	2
1.2 Strategies to control and eliminate malaria	4
1.3 Global goals and targets for malaria	6
<b>SECTION 2 Financing for malaria programmes</b>	<b>8</b>
2.1 Growth in annual funding for malaria	8
2.2 Future funding directions	9
<b>SECTION 3 Vector control for malaria</b>	<b>10</b>
3.1 Insecticide-treated mosquito nets	10
3.2 Delivery and distribution of nets	12
3.3 Spraying and larval control for malaria	14
3.4 Insecticide resistance management	16
<b>SECTION 4 Preventive therapies for malaria</b>	<b>18</b>
4.1 Chemoprevention in pregnant women	18
4.2 Chemoprevention in children and infants	19
<b>SECTION 5 Diagnostic testing for malaria</b>	<b>20</b>
5.1 Adoption of 2010 recommendations from WHO	20
5.2 Testing in the private and public sector	21
5.3 Availability and quality of malaria diagnostic tests	22
<b>SECTION 6 Malaria treatment</b>	<b>24</b>
6.1 Use of artemisinin-based combination therapy	24
6.2 Antimalarial drug resistance	28
<b>SECTION 7 Gaps in intervention coverage</b>	<b>30</b>
<b>SECTION 8 Trends in infections, cases and deaths</b>	<b>32</b>
8.1 Reported cases	32
8.2 Malaria infections in sub-Saharan Africa	34
8.3 Estimated cases and deaths, 2013	36
8.4 Changes in estimated cases and deaths, 2000–2013	38
8.5 Estimated cases and deaths averted, 2001–2013	40
<b>References</b>	<b>42</b>
<b>REGIONAL PROFILES</b>	<b>45</b>
<b>COUNTRY PROFILES</b>	<b>67</b>
<b>ANNEXES</b>	<b>167</b>

A photograph of two young girls in a rural setting. The girl in the foreground is wearing a green t-shirt and has her hands clasped. The girl in the background is wearing a light blue tank top and is leaning on a wooden structure. The background shows a wooden ladder and some foliage.

*"Each year, more people  
are being reached with  
core malaria interventions,  
and as a result, more lives  
are being saved."*

# Foreword



**Dr Margaret Chan**  
**Director-General**  
**World Health Organization**

The findings in this year's *World Malaria Report* demonstrate that the world is continuing to make impressive progress in reducing

malaria cases and deaths. Each year, more people are being reached with core malaria interventions, and as a result, more lives are being saved. The malaria target under Millennium Development Goal 6 has been met, and 55 countries are on track to reduce their malaria burden by 75%, in line with the World Health Assembly's target for 2015.

In 2013, we saw a major expansion in the use of diagnostic testing and the deployment of artemisinin-based combination therapies (ACTs). For the first time, more diagnostic tests were provided at public health facilities in Africa than ACTs distributed, indicating a prominent shift away from presumptive treatment. Major progress has been documented in vector control as well: in 2014, a record number of long-lasting insecticidal nets were delivered to endemic countries in Africa.

The report shows that malaria mortality rates decreased by an impressive 47% between 2000 and 2013 globally, and by 54% in the WHO African Region. It also reveals that these trends are accompanied by a gradual and substantial reduction in parasite prevalence rates across Africa. This means that every year, fewer people get infected or carry asymptomatic infections – a sign that malaria interventions have an even larger impact than previously thought.

These tremendous achievements are the result of improved tools, increased political commitment, the burgeoning of regional initiatives, and a major increase in international and domestic financing. WHO is grateful for the engagement and long-standing commitment of the global health community, and inspired by the growing desire to accelerate efforts towards malaria elimination.

But we must not be complacent. Most malaria-endemic countries are still far from achieving universal coverage with life-saving malaria interventions; many biological and systemic challenges threaten to slow us down.

Available funding is far less than what is required to protect everyone at risk. An estimated 278 million people in Africa still live in households without a single insecticide-treated bed net, and about 15 million pregnant women remain without access to preventive treatment for malaria. Malaria is still responsible

for over 430 000 child deaths in Africa every year. Emerging drug- and insecticide-resistance continues to pose a major threat, and if left unaddressed, could trigger an upsurge in deaths.

The Ebola outbreak has had a devastating impact on basic health service delivery in the most severely affected countries, including the ability to control malaria. In Guinea, Liberia, and Sierra Leone, the collapse of health systems has affected all core malaria interventions and is threatening to reverse recent gains. WHO is working closely with countries and partners to prevent a worsening of the malaria situation and reduce the pool of fever cases.

This Ebola outbreak is a global tragedy that is rewriting the history of public health. It has served as a wake-up call for governments and the global development community, urging a major global rethink about the importance of strengthening health systems and building resilience.

All global health efforts will benefit from a strengthening of health systems, including efforts to control and eliminate malaria. Such investments will help us close the coverage gap, strengthen disease surveillance and research, and support the development and roll-out of new tools and approaches. They will make malaria and other public health responses more effective and more sustainable.

Recent progress in reducing the human suffering caused by malaria has shown us that, with adequate investments and the right mix of strategies, we can indeed make remarkable strides against this complicated enemy. We should act with urgency and resolve, and remain focused on our shared goal: to create a world in which no one dies of malaria, a world entirely clear of this scourge.

A handwritten signature in black ink, reading "M. Chan".

# ACKNOWLEDGEMENTS

We are very grateful to the numerous people who contributed to the production of the *World malaria report 2014*. The following people collected and reviewed data from malaria-endemic countries:

Ahmad Walid Sediqi, Mohammad Sami Nahzat and Ahmad Mureed Muradi (Afghanistan); Hammadi Djemi (Algeria); Rafael Dimbu and Yava Luvundo Ricardo (Angola); Mario Zaidenberg (Argentina); Suleyman Mammadov (Azerbaijan); Kamar Rezwan (Bangladesh); Kim Bautista (Belize); Mariam Oke Sopoh (Benin); Nima Wangdi Gyeltshen (Bhutan); Omar Flores Velasco (Bolivia [Plurinational State of]); Simon Chihanga (Botswana); Cassio Roberto Leonel Peterka (Brazil); Sanon Harouna and Laurent Moyenga (Burkina Faso); Nnayizeye Felicien and Hermenegilde Nzimenya (Burundi); Julio Monteiro Rodrigues (Cabo Verde); Siv Sovannaroth (Cambodia); Kouambeng Celestin and Etienne Fondjo (Cameroon); Aristide Komangoya-Nzonzo and Jean Méthode Moyon (Central African Republic); Mahamat Idriss Djaskano and Israel Demba Kodindo (Chad); Li Zhang (China); Nohora Gonzalez, Julio Padilla, Jose Ziade and Cesar Restrepo (Colombia); Astafieva Marina (Comoros); Jean-Mermoz Youndouka (Congo); Jose Luis F. Garcés Fernández (Costa Rica); Ehui Anicet, Adama Coulibaly and Parfait Katche (Côte d'Ivoire); Kim Yun Chol (Democratic People's Republic of Korea); Hyacinthe Kaseya Ilunga and Jean Caurent Mantshumba Bikete (Democratic Republic of the Congo); Abdoukader Garad and Farah Mohamoud Ahmed (Djibouti); Jose Manuel Puello Montero (Dominican Republic); Enrique Castro Saavedra (Ecuador); Jaime Enrique Alemán (El Salvador); Matilde A. Riloha Rivas (Equatorial Guinea); Selam Mihreteab (Eritrea); Assefash Zehaie Kassahun and Hiwot Solomon Taffese (Ethiopia); Vanessa Ardillon (France [French Guiana]); Sabine Henry (France [Mayotte]); Pagès Frédéric (France [Réunion]); Abdou Razack Safiou (Gabon); Momodou Kalleh (Gambia); Merab Iosava (Georgia); Godson Kofi Osae (Ghana); Adolfo Miranda (Guatemala); Nouman Diakite (Guinea); Paulo Djata (Guinea-Bissau); Reyaud Rahman (Guyana); Darlie Antoine (Haiti); Engels

Makita and James Wangi (Papua New Guinea); Cynthia Viveros and Monica Ozorio (Paraguay); Orlando Martin Clendenes Alvarado (Peru); Mario Baquilod (Philippines); Park Kyoun-Eun (Republic of Korea); Emmanuel Hakizama, Corine Karema and Alphonse Rukundo (Rwanda); Jessica Da Veiga Soares (Sao Tome and Principe); Mohammed Hassan Al-Zahrani (Saudi Arabia); Aliou Diallo and Medoune Ndiop (Senegal); Musa Sillah-Kanu and Samuel Juana Smith (Sierra Leone); Albino Bobogare (Solomon Islands); Abdi Abdilahi Ali, Abdikarim Hussein Hassan, Abdiqani Sheikh Omer, Jamal Amran and Fahmi Yusuf (Somalia); Eunice Misiani and Bridget Shandukani (South Africa); Harriet Akello Pasquale (South Sudan); Risintha Premaratne (Sri Lanka); Abd Alla Ahmed Ibrahim, Fahad Ali and Hmooda Toto-Kafy (Sudan); Beatrix Jubithana (Suriname); Simon Kunene (Swaziland); Atef Al Tawil (Syrian Arab Republic); Karimov Saifuddin (Tajikistan); Nipon Chinanonwait (Thailand); Maria do Rosiro de Fatima Mota (Timor-Leste); Koko Lawson-Evi and Tchadjobo Tchassama (Togo); Seher Topluoglu (Turkey); Mulyazaawo Mathias Kasule (Uganda); Anna Mahendeka and Ritha Njau (United Republic of Tanzania, [Mainland]); Abdulwahid H. Al-mafazy (United Republic of Tanzania [Zanzibar]); Tyo Inna (Uzbekistan); Wesley Donald (Vanuatu); Jose Luis Caceres (Venezuela [Bolivarian Republic of]); Nguyen Quy Anh (Viet Nam); Moamer Mohammed Badi and Adel Al-Jasari (Yemen); Mercy Mwanza Ingwe and Freddie Masaninga (Zambia); Jasper Pasipamire and Wonder Sithole (Zimbabwe).

The following WHO staff in regional and subregional offices assisted in the design of data collection forms; the collection and validation of data; and the review of epidemiological estimates, country profiles, regional profiles and sections:

Birkinesh Amenshewa, Magaran Bagayoko, Boniface Ekoue Kinvi and Issa Sanou (WHO Regional Office for Africa [AFRO]); Spes Ntabangana (AFRO/Inter-country Support Team [IST] Central Africa); Khoti Gausi (AFRO/IST East and Southern Africa);

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_27653](https://www.yunbaogao.cn/report/index/report?reportId=5_27653)

