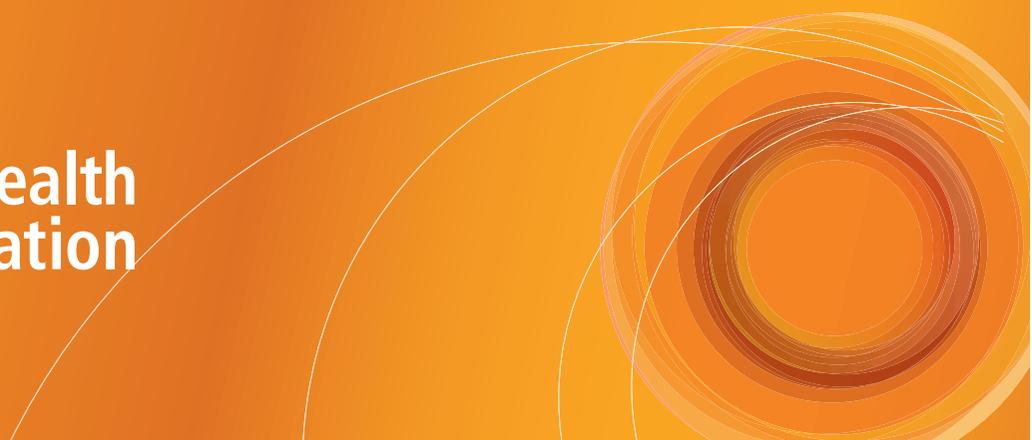




World Malaria Report 2008



World Health
Organization



World malaria report

2008



**World Health
Organization**

WHO Library Cataloguing-in-Publication Data

World malaria report 2008.

“WHO/HTM/GMP/2008.1”.

1.Malaria – prevention and control. 2.Malaria – drug therapy. 3.Antimalarials. 4.National health programmes.
5.Statistics. I.World Health Organization.

ISBN 978 92 4 156369 7

(NLM classification: WC 765)

© World Health Organization 2008

All rights reserved. Publications of the World Health Organization can be obtained 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). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

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 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.

Cover design by Anne Guilloux and Christopher Dye. The bars show the growing number of insecticide-treated nets (ITN) sold or delivered worldwide between 2001 and 2006. There was a modest increase in the number of conventional ITN delivered in 2005 and 2006 (blue bars), and a large increase in the number of long-lasting insecticidal nets delivered (orange bars), especially to countries in the African Region (Chapter 4).

Printed in Switzerland

• • •

Contents

Abbreviations	iv
Acknowledgements	v
Summary	vii
Key points	viii
Résumé	xi
Points essentiels	xii
Resumen	xvi
Puntos clave	xvii
1. Introduction	1
2. Policies, strategies and targets for malaria control	3
3. Estimated burden of malaria in 2006	9
4. Interventions to control malaria	16
5. Impact of malaria control	27
Profiles: 30 high-burden countries	33
Annex 1 Estimating the numbers of malaria cases and deaths by country in 2006	129
Annex 2 Estimated and reported cases and deaths, 2006	141
Annex 3 A. Reported malaria cases, 1990–2007	145
B. Reported malaria deaths, 1990–2007	149
Annex 4 A. Recommended policies and strategies for malaria control, 2007	151
B. Antimalarial drug policy, 2008	156
Annex 5 Operational coverage of insecticide-treated nets, indoor residual spraying and antimalarial treatment, 2004–2007	159
Annex 6 A. Household surveys of mosquito net ownership and usage, 2001–2007	169
B. Household surveys of antimalarial treatment, 2001–2007	177
Annex 7 Funding for malaria control, 2004–2007	183

Abbreviations

ACT	Artemisinin-based combination therapy	PAHO	Pan-American Health Organization
AIDS	Acquired immunodeficiency syndrome	RBM	Roll Back Malaria
AFR	WHO African Region	RDT	Rapid diagnostic test
AFRO	WHO Regional Office for Africa	SEAR	WHO South-East Asia Region
AMR	WHO Region of the Americas	SEARO	WHO Regional Office for South-East Asia
AMRO	WHO Regional Office for the Americas	SPR	Slide positivity rate
API	Annual parasite incidence	SUFI	Scaling Up for Impact
DDT	Dichloro-diphenyl-trichloroethane	WPR	WHO Western Pacific Region
DHS	Demographic household survey	WPRO	WHO Regional Office for the Western Pacific
EMR	WHO Eastern Mediterranean Region		
EMRO	WHO Regional Office for the Eastern Mediterranean		
EUR	WHO European Region		
EURO	WHO Regional Office for Europe		
GBD	Global burden of diseases		
GMP	Global Malaria Programme		
HIV	Human immunodeficiency virus		
IAEG	Inter-Agency and Expert Group on MDG Indicators		
IRS	Indoor residual spraying		
IPT	Intermittent preventive treatment		
ITN	Insecticide-treated nets		
LLIN	Long-lasting insecticidal nets		
MDGs	Millennium Development Goals		
MERG	Monitoring and Evaluation Reference Group (for malaria)		
MICS	Multiple indicator cluster survey		
MIS	Malaria indicator survey		
NMCP	National malaria control programme		

Abbreviations of antimalarial treatments

AQ	Amodiaquine
AL	Artemether-lumefantrine
AM	Artemether
AS	Artesunate
C	Clindamycine
CQ	Chloroquine
D	Doxycycline
IPT	Intermittent preventive treatment
MQ	Mefloquine
PG	Proguanil
PIP	Piperaquine
PQ	Primaquine
QN	Quinine
SP	Sulfadoxine-pyrimethamine
T	Tetracycline
(d)	Days on treatment course

Acknowledgements

The *World malaria report 2008* was written and produced by Maru Aregawi, Richard Cibulskis, Mac Otten, Ryan Williams and Christopher Dye, on behalf of the WHO Global Malaria Programme.

Maru Aregawi, Richard Cibulskis and Ryan Williams designed the data-collection form, and compiled and reviewed data provided by national malaria control programmes. Ryan Williams designed and managed the global malaria database, automated the production of country profiles, and prepared maps and Annexes 2–7 with the assistance of Anne Guilloux. The analysis of policies and strategies for malaria control, and of epidemiological and financial data, was carried out by Maru Aregawi, Richard Cibulskis, Christopher Dye, Mac Otten and Ryan Williams.

Additional information on the adoption and implementation of WHO policies and strategies for malaria control was provided by: Medhin Ambachew, Amy Barrette, Andrea Bosman, Valentina Buj, Kabir Cham, Pierre Guillet, Stefan Hoyer, Kamini Mendis, Sivakumaran Murugasampillay, Peter Olumese, Aafje Rietveld, Pascal Ringwald, Silvia Schwarte, Sergio Spinaci, Marian Warsame and Wilson Were of the WHO Global Malaria Programme.

Richard Cibulskis developed methods and undertook the analysis of the burden of malaria with the support of Maru Aregawi, Christopher Dye, Mac Otten and Ryan Williams. Colin Mathers played an essential role in validating estimation methods and in aligning the estimates of malaria cases and deaths with the Global Burden of Disease Project. Eline Korenromp (Global Fund to fight AIDS, Tuberculosis and Malaria) and other colleagues in the morbidity task force of the Roll Back Malaria Monitoring and Evaluation Reference Group reviewed the estimation methods (Annex 1).

Data from the demographic household survey (DHS), multiple indicator cluster survey (MICS) and malaria indicator survey (MIS) platforms (Annex 6) were compiled and checked by Fred Arnold (DHS), Erin Eckert (Macro International Inc.), Emily White Johansson (United Nations Children's Fund, UNICEF) and Tessa Wardlaw (UNICEF), together with WHO.

We also thank Adam Wolkon (US Centers for Disease Control and Prevention, CDC), Amy Ratcliffe (CDC), Allen Hightower (CDC) and Rick Steketee (Malaria Control and Evaluation Partnership in Africa) who reviewed information on indicators, targets, and on malaria in the WHO African Region.

The following WHO staff in regional and subregional offices assisted with the collection and validation of data, and reviewed epidemiological estimates and country profiles: Etienne Magloire Minkoulou (AFRO), Khoti Gausi (AFRO/eastern and southern Inter-Country Support Team, ICST), Samson Katikiti (AFRO/eastern and southern ICST), Nathan Bakayita (AFRO), Amadou Bailo Diallo (AFRO/central IST), Abderrahmane Kharchi (AFRO/western IST), Jean-Olivier Guintran (AFRO/western IST), Georges Alfred Ki-zerbo (AFRO), Soce Fall (AFRO), Ghasem Zamani (EMRO), Hoda Atta (EMRO), Karen Taksø-Vester (EURO), Mikhail Ejov (EURO), Keith Carter (AMRO), Rainier Escalada (AMRO), Eva-Maria Christophel, Violeta Gonzales (WPRO), Krongthong Thimasarn (SEARO), R. Rastogi (SEARO).

The following played a key role in collecting and reviewing national data from the malaria-endemic countries: Ahmad Walid Sediqi (Afghanistan); Lic Pablo Orellano (Argentina); Ara Keshishyan (Armenia); Viktor Gasimov (Azerbaijan); A. Mannan Bangali (Bangladesh); Kossou Hortense (Benin); Dechen Pemo (Bhutan); Kentse Moakofhi, T. Mosweunyane (Botswana); Lakshmi Devi Telsinghe (Brunei Darussalam); Jean Eric Ouedraogo (Burkina Faso); Baza Dismas (Burundi); Duong Socheat, Md Abdur Rashid (Cambodia); Kwake Simon Fozo (Cameroon); António Moreira (Cape Verde); Max Roger Koula (Central African Republic); Issa Donan-Gouni, Dapsou Guidinassou (Chad); Yi Wang (China); Ibrahima Ahmada (Comoros); Bouka Roger Germain (Congo); Côme Donatien K. Feby Angui (Côte d'Ivoire); P. Vason (Democratic People's Republic of Korea); Kanyeba Mpiana, Godée Hedwige (Democratic Republic of the Congo); Johannes Don Bosco (Democratic Republic of Timor-Leste); Jaime Enrique Alleman Escobar (El Salvador); Tewolde Ghebremeskel (Eritrea); Ambachew Medhin Yohannes, Worku Bekele (Ethiopia); Pambou Nicaise (Gabon); Malang Fofana, Mamo Jawla (Gambia); Merab Iosava (Georgia); Constance Barte-Plange (Ghana); Amadou Sadio Diallo (Guinea); Evangelino Albano Quade (Guinea-Bissau); Laura Julia Salgado, Y. Ricardo Kafie (Honduras); Charles Tobing (Indonesia); Ahmad Raeisi (Islamic Republic of Iran); Ahmed Akram Ahmed (Iraq); Zhanna Shapiyeva (Kazakhstan); R.J. Kiptui (Kenya); Nurbolot Usenbaev (Kyrgyzstan); Deyer Gopinath (Lao People's Democratic Republic); Tolbert G. Nyenswah (Liberia); Benjamin Ramarosandrana (Madagascar); Storn Kabuluzi (Malawi); Che Abdullah Hassan (Malaysia); Hassan Samir (Maldives); Ignace Traoré (Mali); Sid M'Hamed Ould

Lebatt (Mauritania); Than Winn (Myanmar); S.T. Katokele (Namibia); Soe Aung (Nepal); Francisco Acevedo, Julio Rosales, Aída Soto (Nicaragua); Abani Maazou (Niger); T.O. Sofola (Nigeria); Faisal Mansoor (Pakistan); Sharon Jamea, Kwabena Larbi, Leo Makita (Papua New Guinea); Cristy Galang, Raman Velayudhan (Philippines); Hye Kyung Park (Republic of Korea); Corine Karema (Rwanda); José Alvaro Leal Duarte (Sao Tome and Principe); M.H. Alzahrani (Saudi Arabia); Mame Birame Diop, Médoune Diop (Senegal); Samuel H. Baker (Sierra Leone); A. Bobogare (Solomon Islands), Jamal Amran, Waqar Butt, Tanya Shewchuk (Somalia); M.A. Groepe (South Africa); Simon Kunene

(Swaziland); Karimov Sayfuddin (Tajikistan); Nargis Saparova (Tajikistan); Morgah Kodjo (Togo); Seher Topluoglu (Turkey); Kasym Roziyev (Turkmenistan); J.B. Rwakimari (Uganda); Alex Mwita (United Republic of Tanzania); Parida Umarova (Uzbekistan); Lenny Warele (Vanuatu); Trinh Dinh Tuong (Viet Nam); Jameel S.Al-Asbahi (Yemen); and LS Charimari (Zimbabwe).

Finally, we thank Sue Hobbs for graphic design and layout, Mary Roll for editing, and Simone Colairo Valerio, Kreena Govender, Joan Griffith and Rosemary Wakeling for administrative support.

预览已结束，完整报告链接

<https://www.yunbaogao.cn/report/index/report>