SECOND EDITION

TRAINING MODULE ON **MALARIA CONTROL**

Epidemiological approach for malaria control

GUIDE FOR **TUTORS**

World Health Organization

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Foreword

Malaria is a major global public health problem and a leading cause of morbidity and mortality in many countries. Malaria caused an estimated 219 (range 154–289) million cases and 660 000 (range 490 000–836 000) deaths in 2010. Approximately 80% of the cases and 90% of the deaths occur in Africa while the remaining cases and deaths occur mainly in the South-East Asia and Eastern Mediterranean Regions.[1] For the most recent figures on burden of malaria, search for the "World Malaria Report" available on WHO/GMP websites (http://www.who.int/malaria/en/).

The World Health Assembly and Roll Back Malaria (RBM) targets for malaria control and elimination are to achieve at least a 75% reduction in malaria incidence and deaths by 2015.

Elimination of malaria is defined as the reduction to zero of the incidence of locally acquired infection by human malaria parasites in a defined geographical area as a result of deliberate efforts. Elimination programmes require more technical malaria expertise than standard malaria control programmes, and require by national expertise in malaria epidemiology and entomology.

To achieve the objectives of malaria control and elimination programmes, appropriately planned and targeted delivery of essential malaria interventions is critical, including: diagnostic testing and prompt treatment of confirmed infections with effective artemisinin-based combination therapy (ACT); chemoprevention of malaria in pregnant women (Intermittent preventive treatment during pregnancy – IPTp), infants (Intermittent preventive treatment during pregnancy – IPTi) and children (Seasonal malaria chemoprevention – SMC), where appropriate; and application of appropriate vector control interventions, particularly the use of insecticide- treated nets (ITNs/LLINs) and indoor residual spraying (IRS).

This training module on the epidemiological approach for malaria control has been developed to support the staff involved in the planning and management and in the monitoring and evaluation of malaria control and elimination programmes.

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1. WHO (12). *World Malaria Report.* Geneva, World Health Organization. http://www.who.int/malaria/publications/world_malaria_report_2012/en/index.html

Abbreviations

ABER	Annual blood examination rate
ACT	Artemisinin-based combination therapy
ANC	Antenatal clinic
API	Annual parasite index
CFR	Case fatality rate
CSP	Circumsporozoite protein
DALY	Disability-adjusted life year
DHS	Demographic and health survey
EIR	Entomological inoculation rate
ELISA	Enzyme-linked immunosorbent assay
GIS	Geographical information system
HBI	Human blood index
IEC	Information, education and communication
IPT	Intermittent preventive treatment
IRS	Indoor residual spraying
ITN	Insecticide-treated mosquito nets
IVC	Integrated vector control
KAP	Knowledge, attitudes and practices
LLIN	Long-lasting insecticidal nets
MDA	Mass-drug administration
MICS	Multiple indicator cluster survey
MIS	Malaria indicator survey
NGO	nongovernmental organization

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