

World Malaria Report 2013

Taking Stock: opportunities and challenges for
achieving malaria elimination

Alliance for Malaria Prevention
2014 Partners' Meeting
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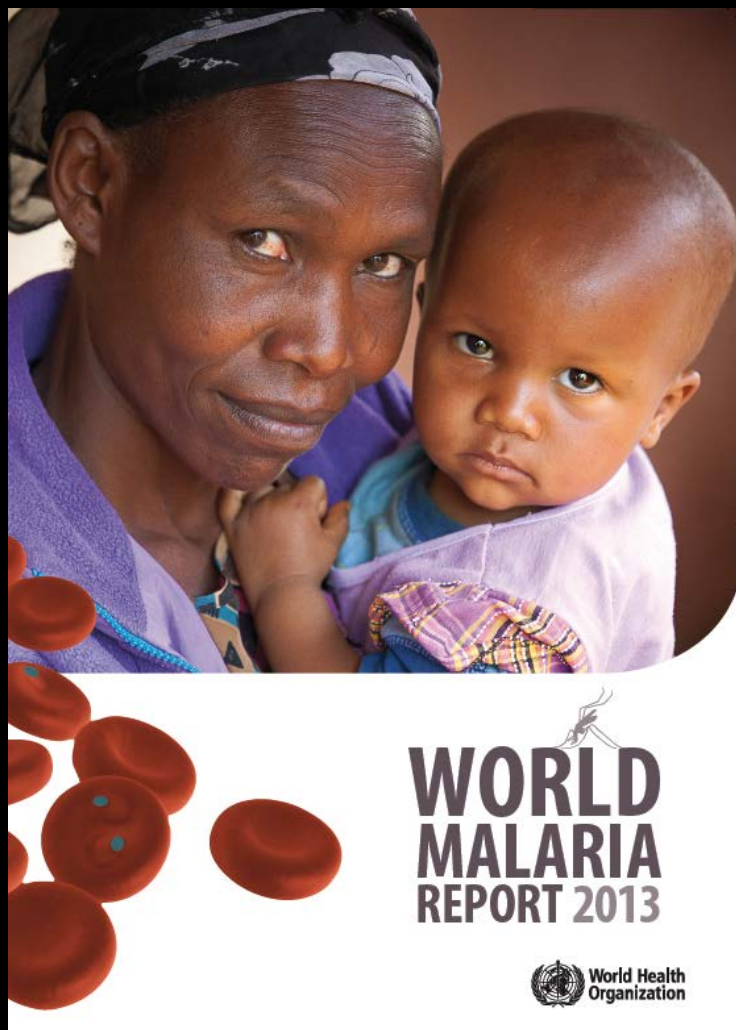


World Health
Organization



GLOBAL MALARIA
PROGRAMME

World Malaria Report 2013



- Released on 11 December 2013
- Annual reference on the status of global malaria control & elimination. Data to 2012 and 2013.
- Principal data source is national malaria control programs with support from multiple partners
- Summarizes key malaria targets & goals
- Documents trends in financing, intervention coverage and malaria cases and deaths
- Profiles for 6 WHO regions and 99 endemic countries and areas
- Annexes on policy, funding, interventions, cases and deaths

http://who.int/malaria/publications/world_malaria_report_2013/en/index.html

Estimated declines in malaria mortality rates from 2000-2012:

45% globally

49% in WHO African Region

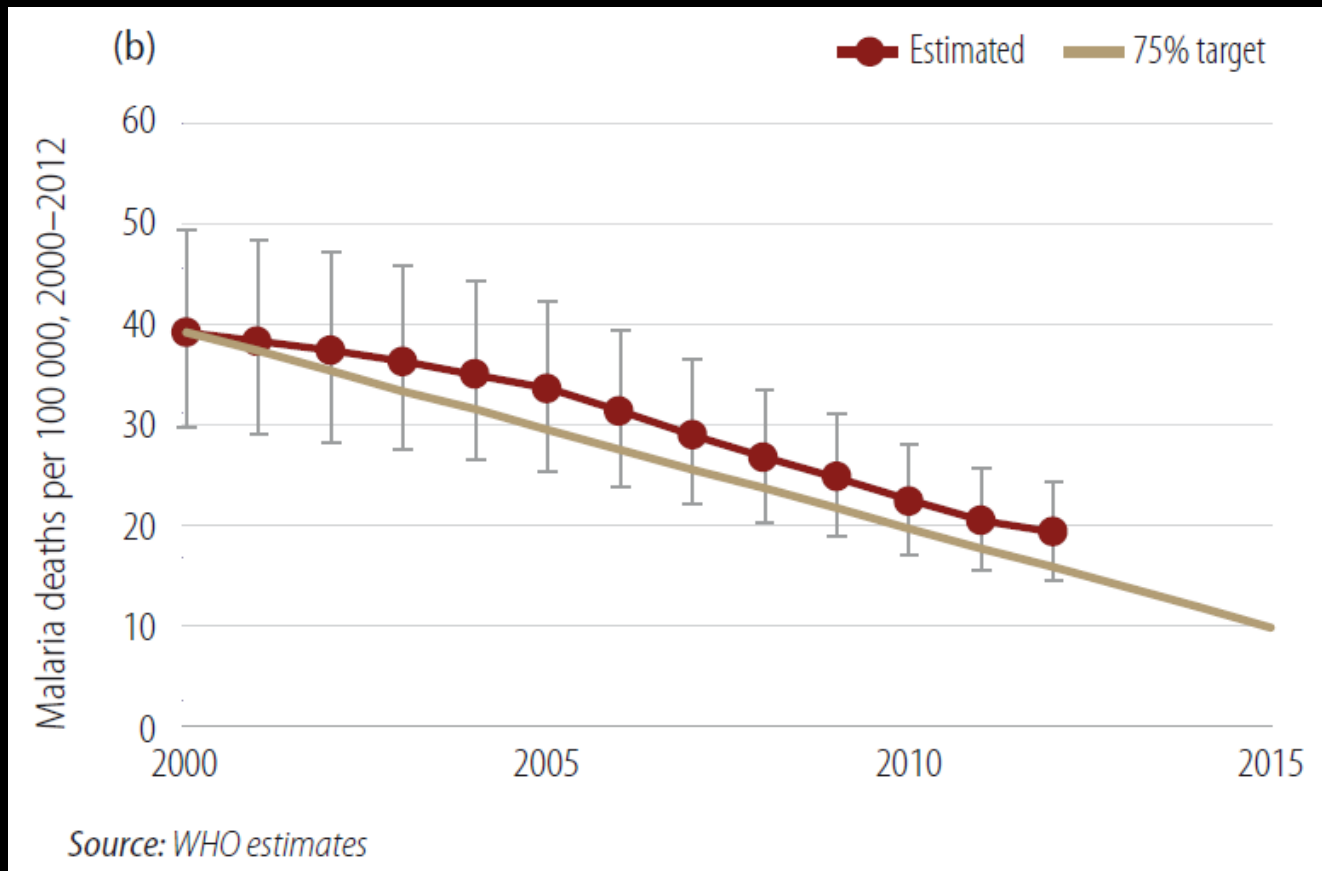
**Estimated 3.3 million lives saved
(69% in 10 countries with highest
burden in 2000)**

Estimated declines in malaria case incidence rates, 2000-2012:

29% globally

31% in WHO African Region

Estimated malaria mortality rates in children <5 years of age, 2000-2012



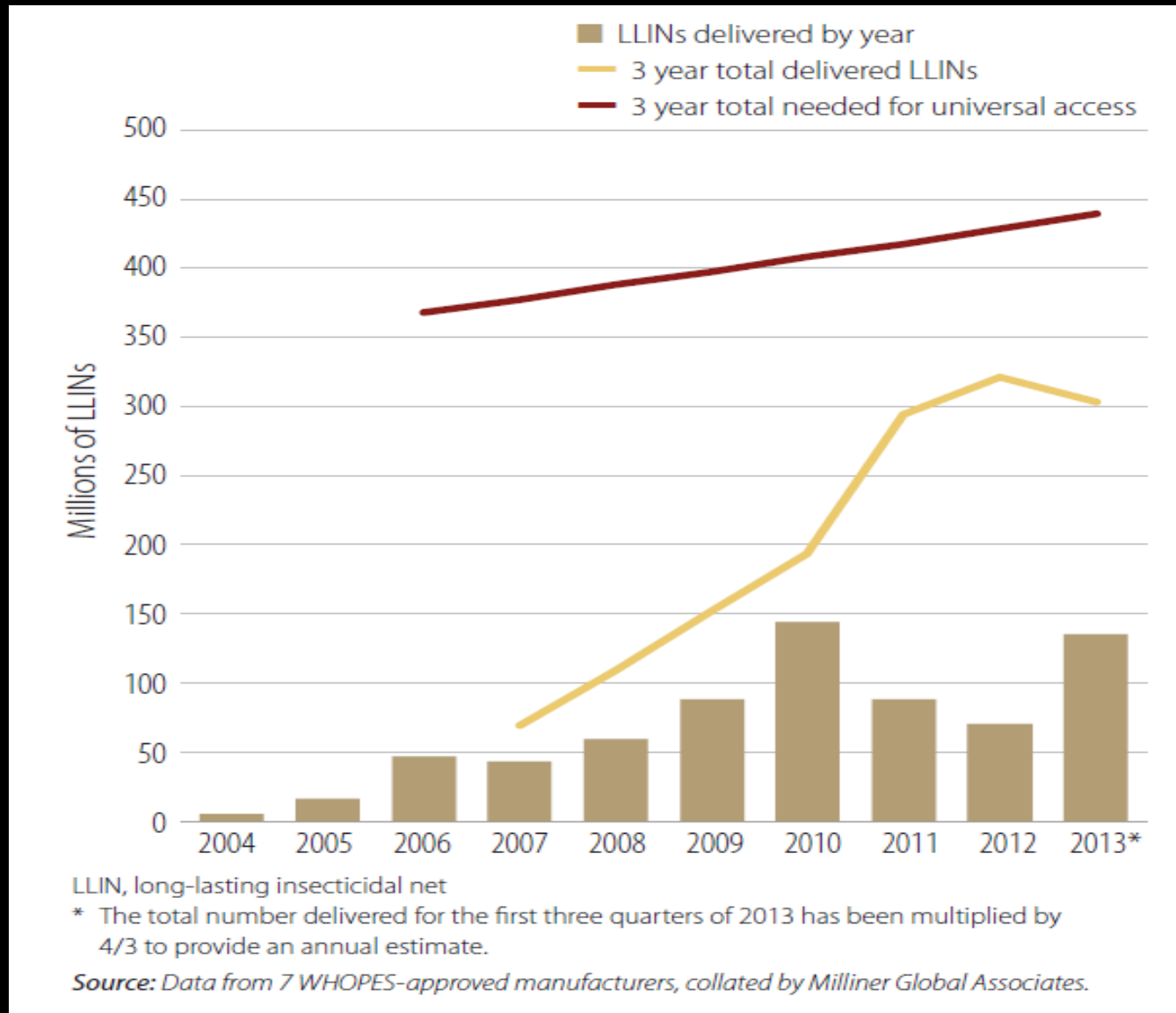
Declined 51% globally and 54% in WHO African Region

**Malaria mortality rates projected to decrease
by 63% in children <5 years of age by 2015**

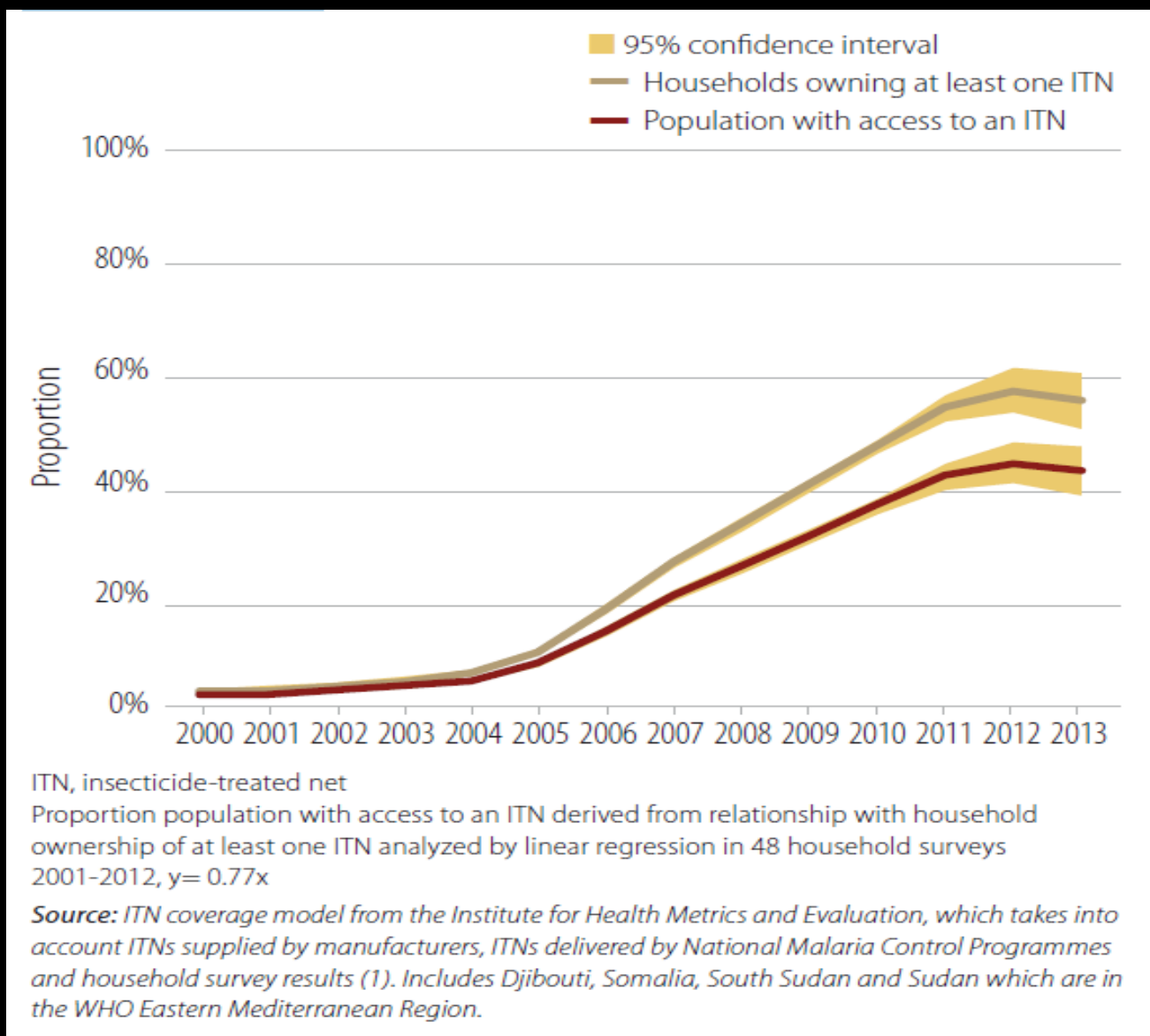
Current core global malaria control interventions



Deliveries of long-lasting insecticidal nets (LLINs) decreased 2011-2012, increased in 2013

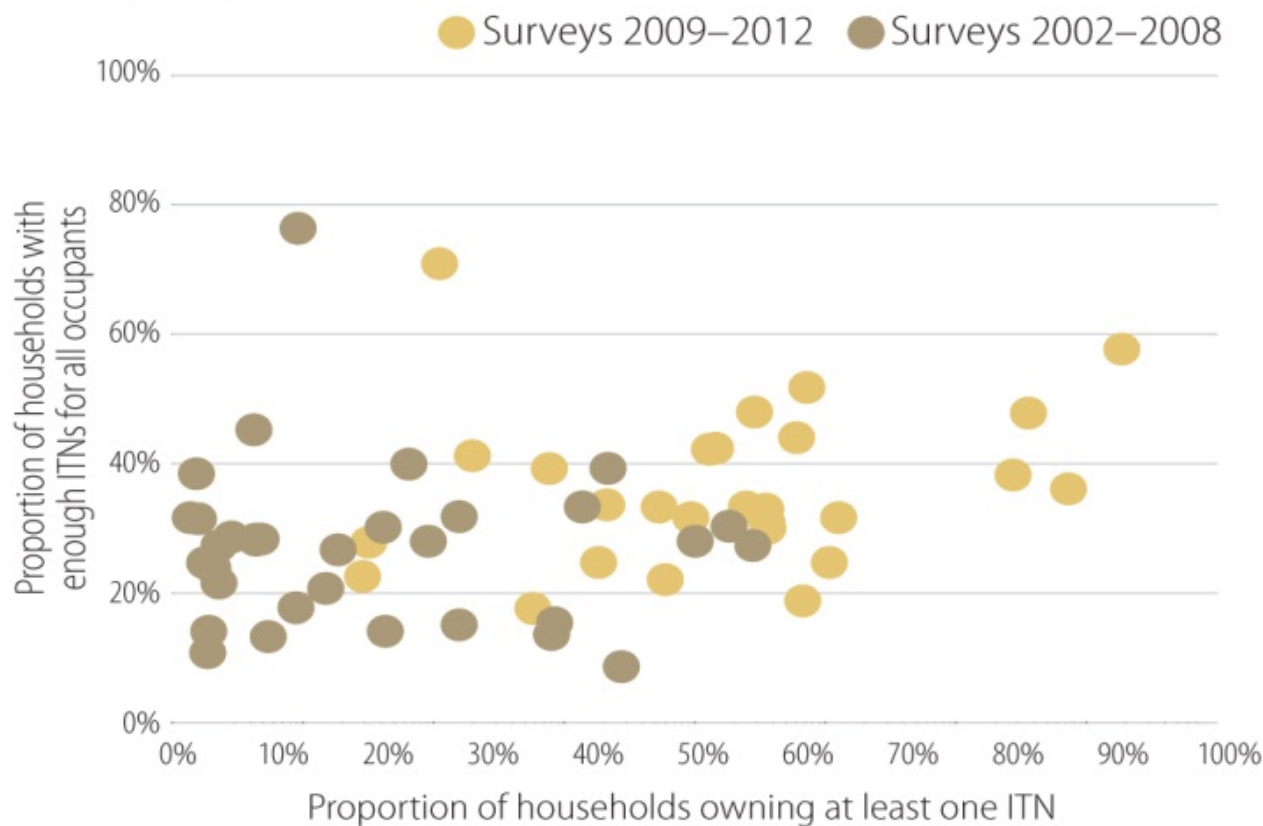


In Africa, 56% of households own at least 1 insecticide treated net (ITN): 42% of population has access to one



Proportion of ITN-owning households with enough ITNs for all occupants has increased

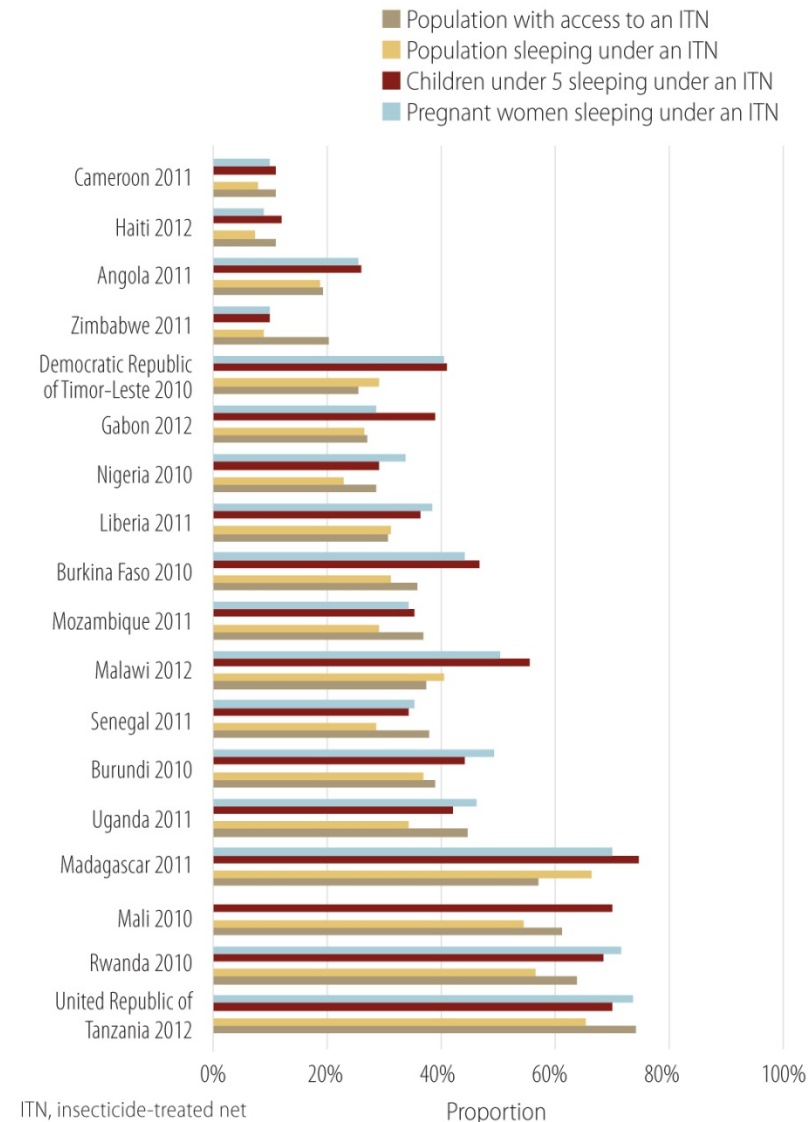
Figure 4.4 Proportion of households with enough ITNs for all occupants by proportion of households with at least one ITN, 2002–2012



ITN, insecticide-treated net

Source: Household surveys, 60 conducted 2002–2012

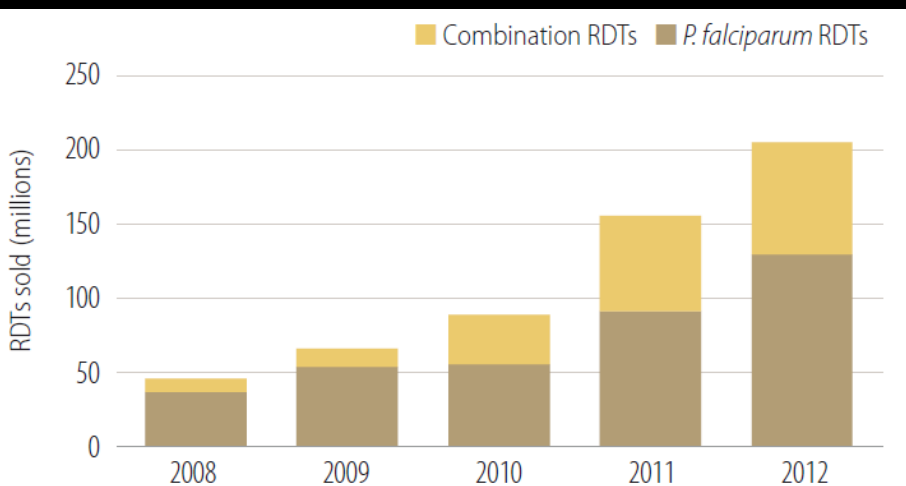
Figure 4.5 Proportion of the population with access to an ITN, and proportion of population, children under five years old, and pregnant women sleeping under an ITN, 2010-2012



**People use ITNs that are available to them
(across surveys, median 88% population use among population with access)**

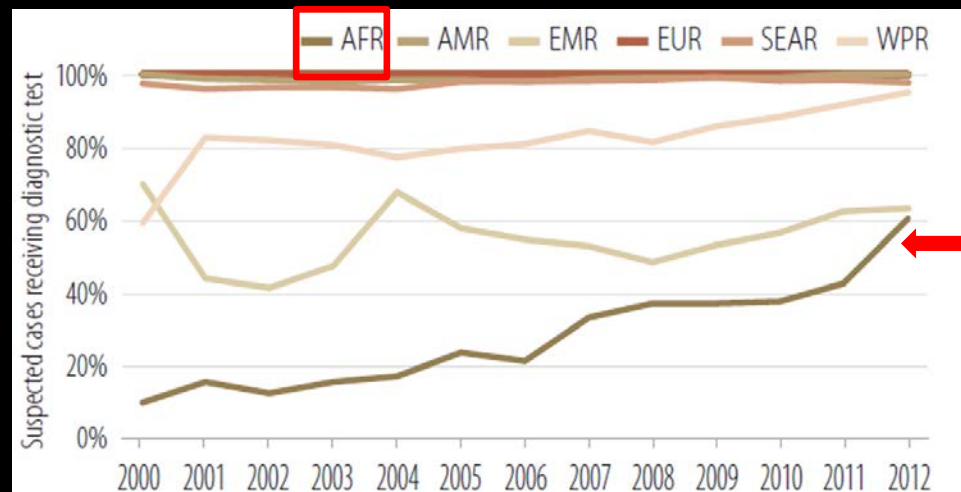
Usage is particularly high among key vulnerable populations (children, pregnant women)

Sales of malaria rapid diagnostic tests (RDTs) and proportion of suspected malaria cases tested (in public health facilities) have increased



CDC, Centers for Disease Control; FIND, Foundation for Innovative New Diagnostics; RDT, rapid diagnostic test

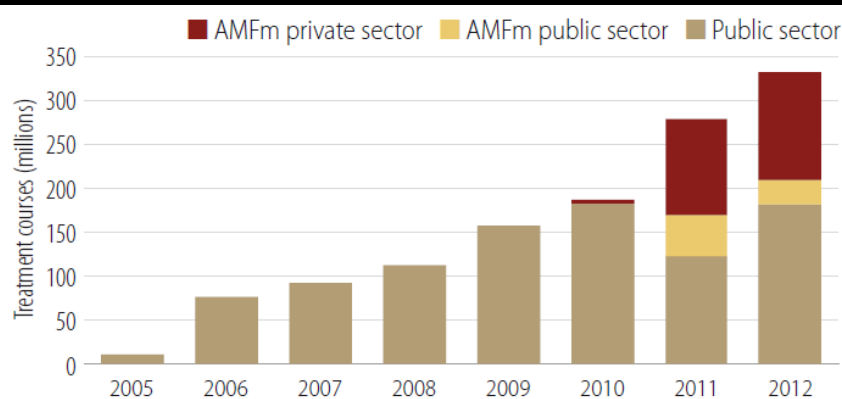
Source: Data provided by 31 (2008-2010), 24 (2011), 24 (2012) manufacturers eligible for the WHO FIND/CDC Malaria RDT Product Testing Programme



AFR, African Region; AMR, Region of the Americas; EMR, Eastern Mediterranean Region; EUR, European Region; RDT, rapid diagnostic test; SEAR, South-East Asia Region; WPR, Western Pacific Region

Source: National Malaria Control Programme reports

Artemisinin-based combination therapy (ACT) deliveries and proportion estimated treated cases receiving ACTs (in public facilities) have increased



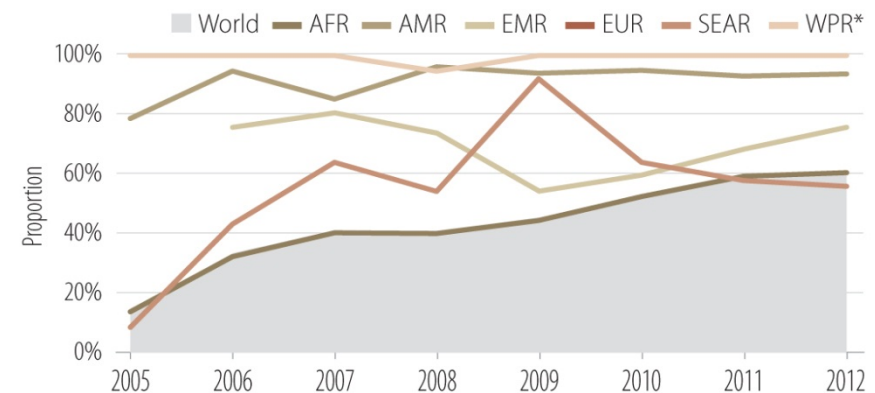
ACT, artemisinin-based combination therapy; AL, artemether-lumefantrine, AMFm, Affordable Medicine Facility – malaria; AQ, amodiaquine, AS, artesunate; Co-B, co-blistered pack; FDC, fixed-dose combination; MQ, mefloquine; SP, sulfadoxine-pyrimethamine

Source (Figures 6.6, 6.7, 6.8): Data provided by 8 manufacturers eligible for procurement from WHO/UNICEF and AMFm reports

Routine ACT public sector deliveries monitored 2005–2012; AMFm-facilitated public and private sector deliveries through AMFm monitored 2010–2012, in 2010 by AMFm reports and in 2011–2012 by reports of manufacturers

ACT deliveries through non-AMFm private sector channels are not monitored, but are estimated to be a small fraction (about 5–10%) compared to public sector deliveries

Figure 6.10 Proportion of estimated presumed and confirmed *P. falciparum* cases at public facilities potentially treated with distributed ACTs, by WHO region, 2005–2012



*WPR does not include Papua New Guinea due to incomplete data

ACT, artemisinin-based combination therapy; AFR, African Region; AMR, Region of the Americas; EMR, Eastern Mediterranean Region; EUR, European Region; RDT, rapid diagnostic test; SEAR, South-East Asia Region; WPR, Western Pacific Region

Source: National Malaria Control Programme reports

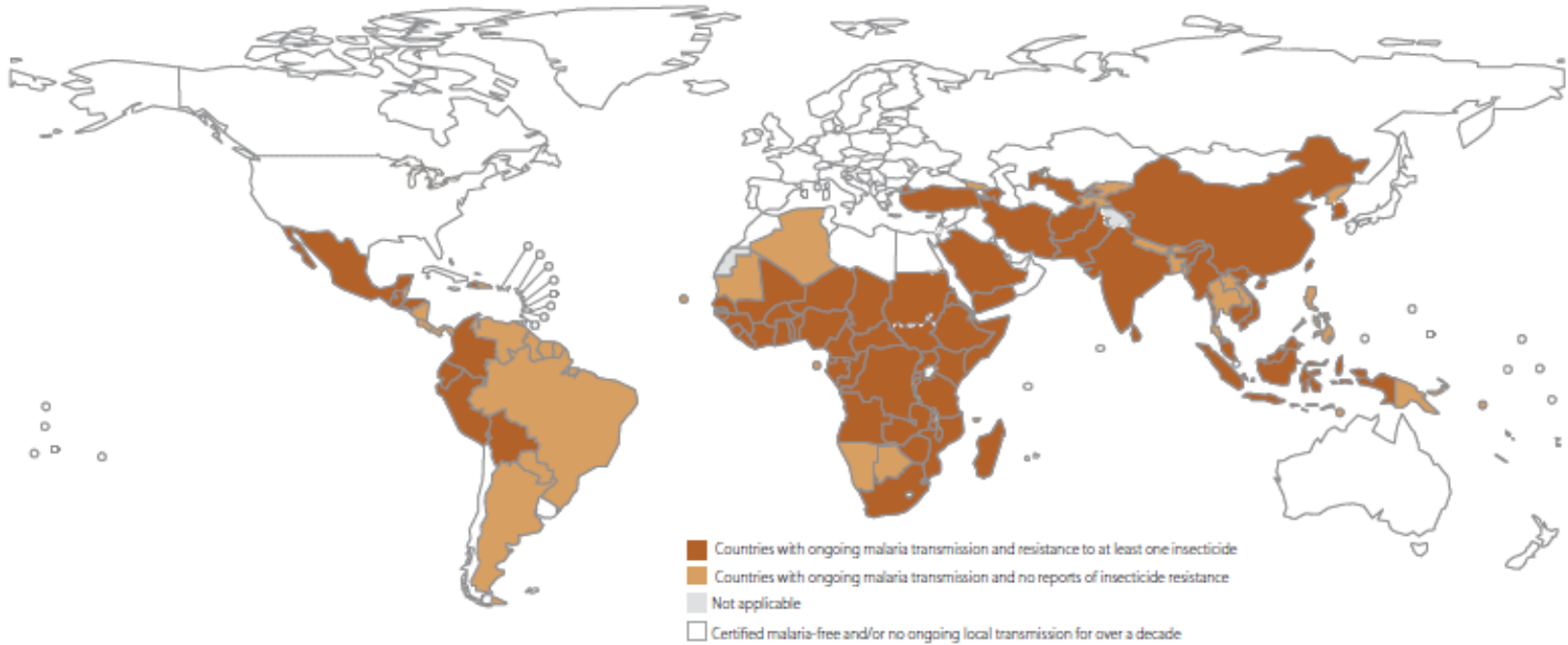
Proportion all malaria cases receiving ACT likely low, due to those not seeking or not brought for care; large numbers of patients without malaria receive ACT

Biological threats to continued success:

Mosquito resistance to insecticides
**Parasite resistance to antimalarial
medicines**

Resistance to at least one insecticide in one malaria vector in one study site has been identified in 64 countries (WMR 2012)

Figure 4.7 Countries with ongoing malaria transmission where insecticide resistance has been identified in at least one of their major vectors



Source: Adapted from Global Plan for Insecticide Resistance Management in malaria vectors, WHO, Geneva, 2012. From WHO regional entomologists in WHO Regional Offices and literature review by the Global Malaria Programme. Map production: Global Malaria Programme (GMP), World Health Organization

Countries with ongoing malaria transmission and no reports of insecticide resistance include countries with confirmed susceptibility to all insecticides used and countries where susceptibility testing is not currently conducted or results are unknown. The map provides no indication of how widespread resistance is within a country; therefore, a single report of resistance would be sufficient to mark a country as having resistance.

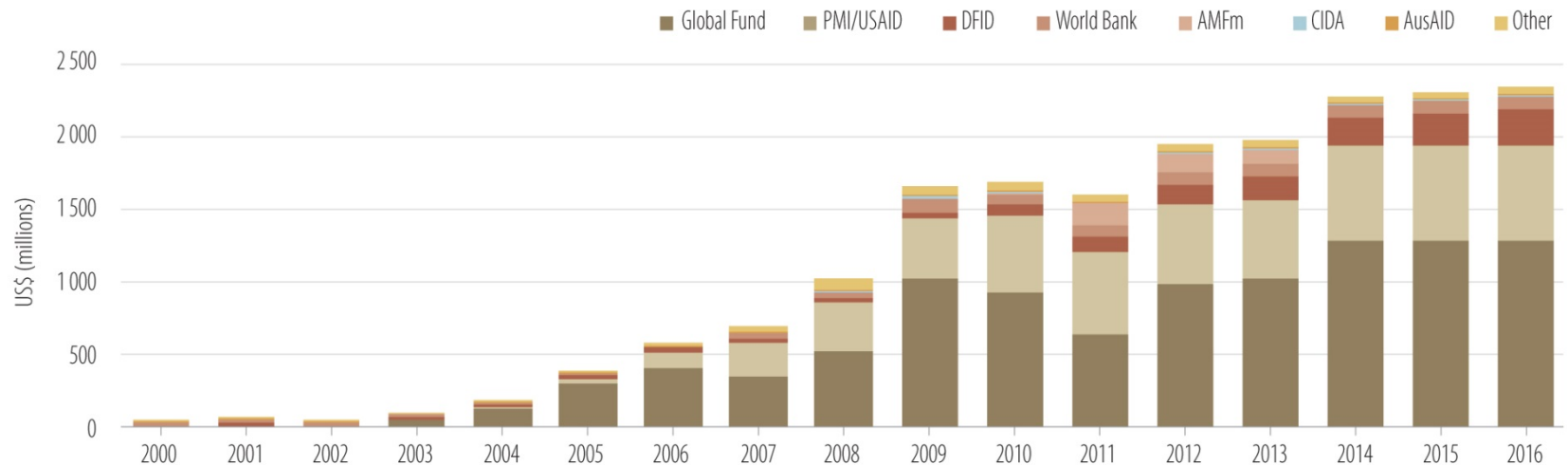
Global Plan for Insecticide Resistance Management in malaria vectors (GPIRM) launched 2012

The greatest threat to continued success in malaria efforts is financial:

Have less than half of the \$5.1 billion needed annually to ensure universal access to life saving interventions

International funding for malaria

Figure 3.1 Past and projected international funding for malaria control, 2000-2016



AMFm, Affordable Medicines Facility – malaria; AusAID, Australian Agency for International Development; CIDA, Canadian International Development Agency; DFID, Department for International Development; GF, Global Fund; PMI, President's Malaria Initiative; USAID, United States Agency for International Development; WB, World Bank

For the GF and PMI/USAID, funds from the last quarter of 2013 onwards are projected; for other agencies, funds from 2012 onwards are projected.

Source: See Box 3.1

Challenges ahead

Universal access to prevention

T3: Test. Treat. Track.

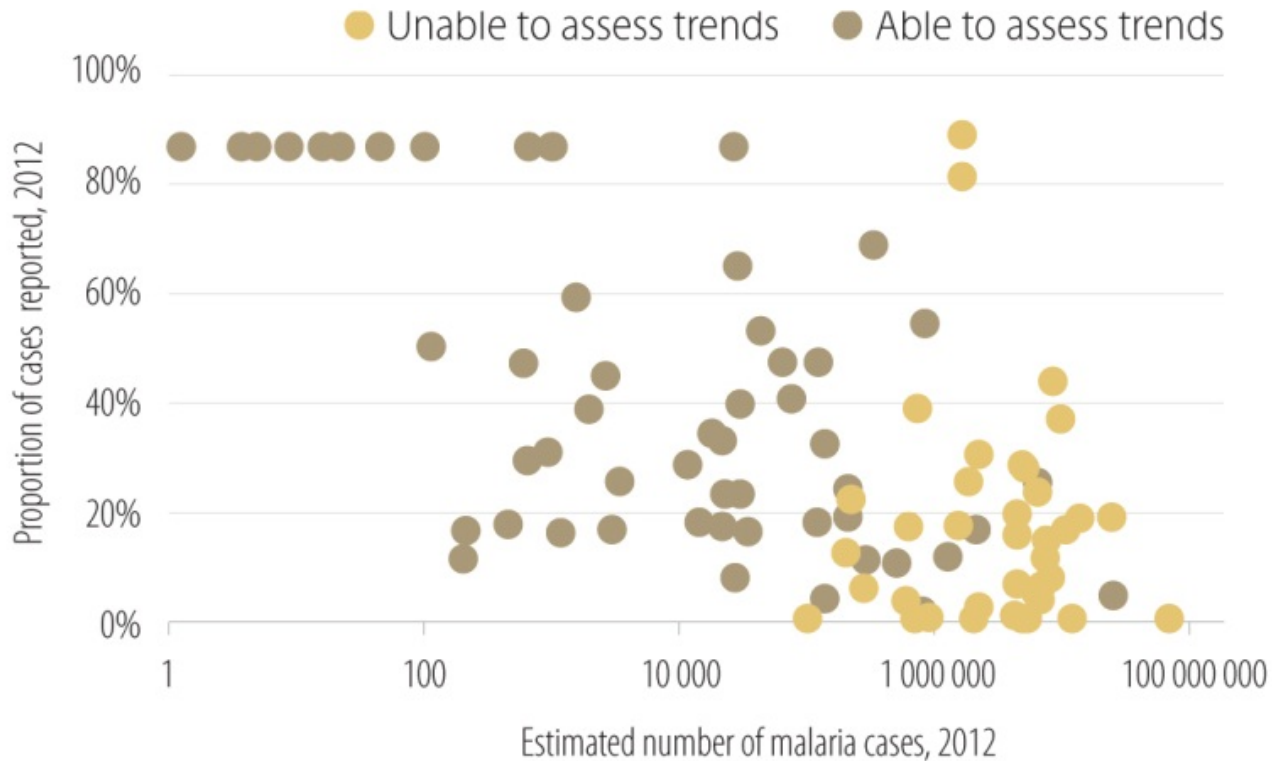
Human capacity

Health Systems

Innovation

Malaria case detection rates are lower in countries with higher estimated numbers of cases

Figure 7.1 Proportion of malaria cases captured by surveillance systems, in relation to total estimated number of cases, 2012, and whether trends over time can be assessed



Source: National malaria control programme data, WHO estimates

Table 8.1 Summary of trends in reported malaria incidence 2000–2011

WHO Region	On track for ≥75% decrease in incidence 2000–2015	50%–75% decrease in incidence projected 2000–2015	<50% decrease in incidence projected 2000–2015	Increase in incidence 2000–2012 ²	Insufficiently consistent data to assess trends
African	Botswana Cabo Verde Eritrea Namibia Rwanda Sao Tome and Principe South Africa Swaziland	Ethiopia Zambia	Madagascar	Algeria	Angola Benin Burkina Faso*+ Burundi+ Cameroon Central African Republic Chad Comoros Congo Côte d'Ivoire Democratic Republic of the Congo Equatorial Guinea* Gabon Gambia Ghana Guinea Guinea-Bissau Kenya* Liberia+ Malawi Mali Mauritania Mayotte, France Mozambique Niger Nigeria Senegal Sierra Leone+ Togo*+ Uganda*+ United Republic of Tanzania* Zimbabwe+
Region of the Americas	Argentina Belize Bolivia (Plurinational State of) Costa Rica Ecuador El Salvador French Guiana, France	Guatemala Honduras Mexico Nicaragua Paraguay Suriname Brazil Colombia Peru	Dominican Republic Panama	Guyana Venezuela (Bolivarian Republic of)	Haiti
Eastern Mediterranean	Iran (Islamic Republic of) Iraq	Saudi Arabia Afghanistan			Djibouti Pakistan* Somalia South Sudan Sudan* Yemen*
European	Armenia Azerbaijan Georgia Kyrgyzstan	Tajikistan Turkey Turkmenistan Uzbekistan			
South-East Asia	Bangladesh Bhutan Democratic People's Republic of Korea	Nepal Sri Lanka Thailand Democratic Republic of Timor-Leste	India		Indonesia Myanmar+
Western Pacific	Cambodia China Malaysia Philippines Republic of Korea	Solomon Islands Vanuatu Viet Nam Lao People's Democratic Republic	Papua New Guinea		

Source: National Malaria Control Programme reports

Countries in prevention of reintroduction phase are not included in this table

Countries in bold achieved ≥75% decrease in case incidence by 2012

* Progress in reducing cases has been reported sub-nationally where interventions have been intensified.

+ Country has recently expanded diagnostic testing, so assessment of trends is difficult.

59 of 103 countries with ongoing transmission in 2000 meeting target of reversing incidence

52 on track to meet RBM/WHA target of reducing malaria incidence rate by 75%

However, in 41 countries, most are in Africa, not possible to assess trends using reported data; use modeling

Currently 7 countries classified in elimination program phase, 7 prevention of re-introduction; 4 recently certified malaria free

Table 8.2. Classification of countries by stage of elimination, December 2013

Region	Pre-elimination	Elimination	Prevention of re-introduction	Recently certified as malaria free
African	Cabo Verde	Algeria		
Region of the Americas	Argentina → Belize Costa Rica Ecuador El Salvador Mexico Paraguay			
Eastern Mediterranean		Iran (Islamic Republic of) Saudi Arabia	Egypt Iraq Oman Syrian Arab Republic	Morocco - 2010 United Arab Emirates – 2007
European		Azerbaijan Tajikistan Turkey	Georgia → Kyrgyzstan → Uzbekistan	Armenia - 2011 Turkmenistan – 2010
South-East Asia	Bhutan Democratic People's Republic of Korea	Sri Lanka		
Western Pacific	Malaysia Republic of Korea			

Source: NMCP reports



Bonnie Gillespie / Photoshare

Despite progress, malaria remains an enormous problem. In 2012, there were an estimated

207 million cases (uncertainty range: 135 million to 287 million) and

627,000 deaths (uncertainty range: 473,000 to 789,000)

