



**Invest in the Future:
Defeat Malaria**

World Malaria Day 2013

Focus on Africa

Statistics and Monitoring Section
Division of Policy and Strategy

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World Malaria Day 2013

Invest in the Future: Defeat Malaria

Produced by the Statistics and Monitoring Section,
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For more information visit childinfo.org and unicef.org.



Malaria progress and challenges

A decade of progress

Due to increased global investment and action on malaria control substantial progress has been made since 2000:

- **Over 1.1 million** lives have been saved worldwide.
- In Africa, **one-third decline** in malaria mortality rates.
- Globally, **26 per cent reduction** of malaria mortality.
- **50 countries** are on track to reduce malaria incidence rates by 75% by 2015.

However, malaria still kills a child every minute

Malaria is a leading killer of children under five.

In 2010, there were **219 million malaria cases** leading to approximately **660,000 malaria deaths**, mostly among African children.

- An estimated 90% of all malaria deaths occur in Africa of which the majority are children under five (91%).
- About 80% of malaria cases occur in 17 countries.
- Globally, 80% of malaria deaths occur in just 14 African countries.
- Together, the Democratic Republic of the Congo and Nigeria account for over 40% of the estimated total of malaria deaths globally.

Source: World Malaria Report 2012

Funding Gap

Malaria resurgence is a real threat and will likely take many more lives unless funding gaps are bridged:

- Over half (US\$2.8 billion) of the estimated annual global resource requirements of \$5.1 billion is still unfunded which threatens to slow down progress as high-burden African countries are unable to replace expiring long-lasting insecticide treated nets (LLINs) nor provide diagnosis and treatment to all who need it.

UNICEF's contributions to malaria control

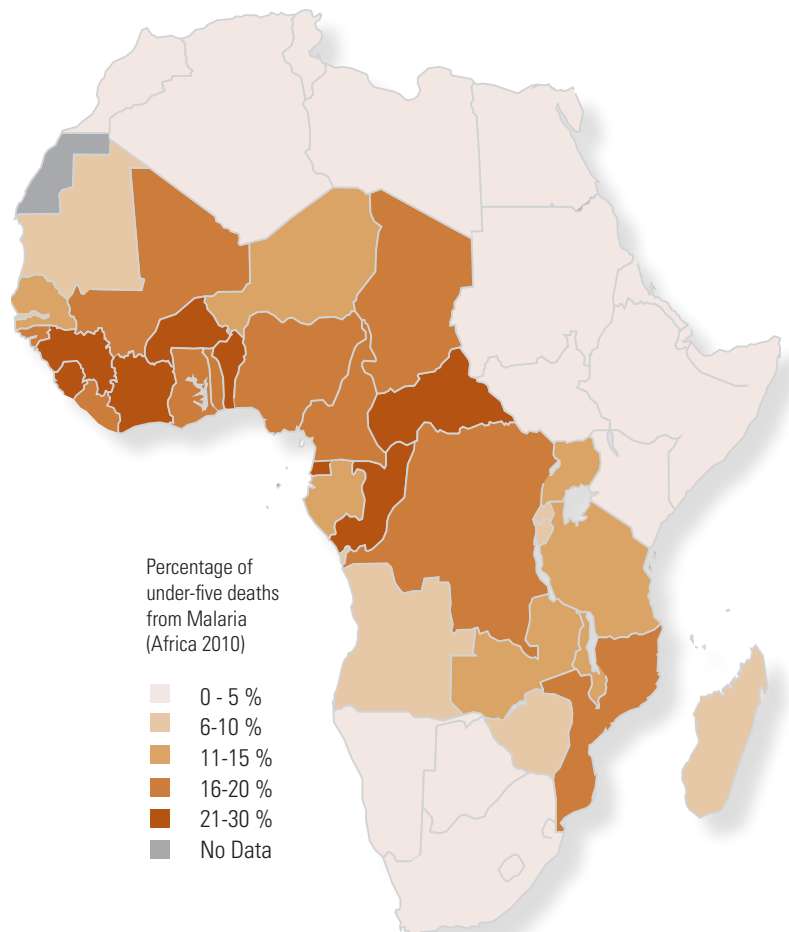
UNICEF spends on average \$1.8 billion every year on child survival programming, including funding for malaria control.

Prevention — In the last five years, UNICEF has procured and supported the distribution of over 120 million insecticide treated mosquito nets.

- In 2012, UNICEF provided support to Long Lasting Insecticide treated Nets (LLIN) campaigns in over 30 countries in sub-Saharan Africa.
- UNICEF is using all available channels to ensure that communities are understanding and responding to the message to sleep under their nets every night.

Case Management — In 2012, UNICEF procured 25 million anti-malarial treatments (artemisinin-based combination therapy — ACTs) and 18 million rapid diagnostics tests (RDTs).

Malaria deaths among children under five in Africa (%)



Note: The boundaries used on these maps do not imply official endorsement or acceptance by the United Nations.



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Source: Child Health Epidemiology Reference Group (CHERG) 2012

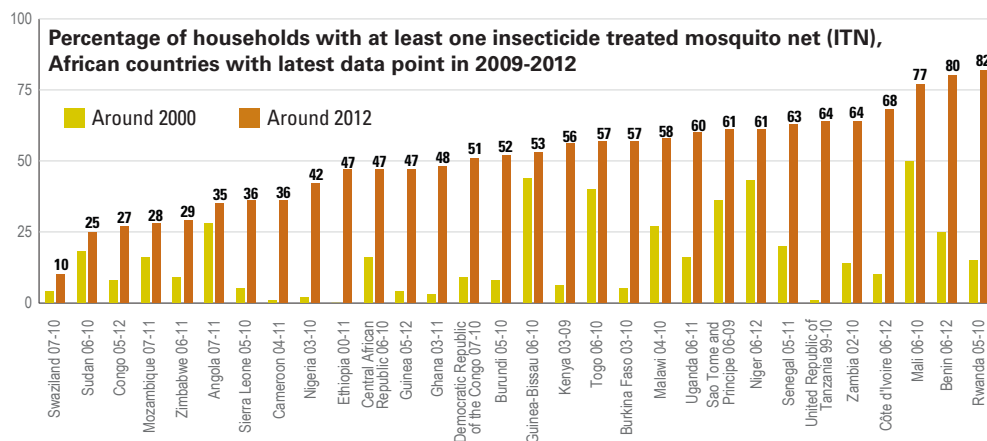
Malaria prevention

Malaria prevention through vector control

The two most powerful and most broadly applied interventions for malaria vector control prevention are insecticide-treated mosquito nets (ITNs) and indoor residual spraying (IRS). However, malaria vector control is only effective with sustained high coverage. Unless there is a substantial increase in funding for malaria control in 2013 major resurgences of malaria are highly likely.

Access to ITNs is increasing but most countries are still far from universal coverage targets

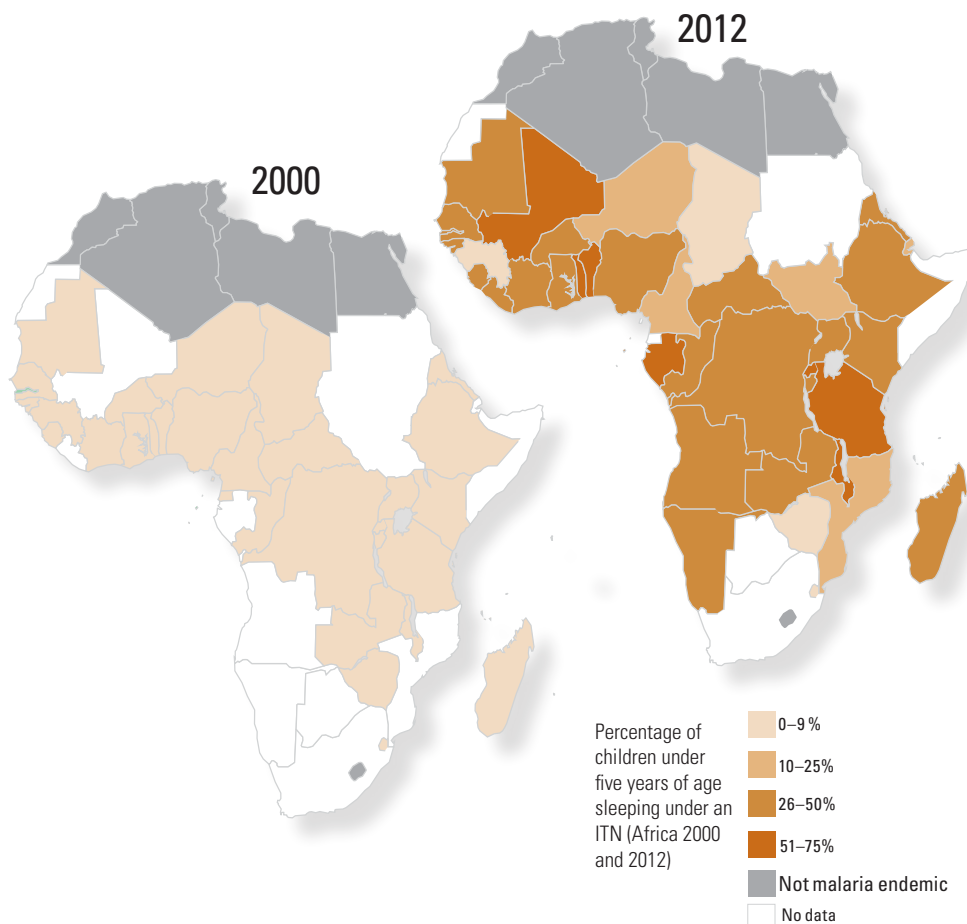
- There is still high variability in household ITN ownership across Africa (from less than 30 per cent to more than 80 per cent).
- In 2012, 70 million nets were delivered in sub-Saharan Africa. This was less than half of the nets delivered in 2010.



Major progress in ITN use among children during the last decade

- During the last decade, the proportion of children sleeping under ITNs in sub-Saharan Africa increased from less than 5 per cent to over a third with large country variation.
- Countries in Africa are focused on increasing coverage for ITN use among children in the most equitable manner: mass campaigns strive for universal coverage to ensure everyone is reached.
- The priority has been to cover mothers and children in poor and rural areas.

Children under five sleeping under ITNs in Africa (%)



Indoor residual spraying is another effective method on the rise

- Substantial efforts by the US President's Malaria Initiative (PMI), along with WHO and other partners have been made to scale-up indoor residual spraying (IRS) in appropriate areas.
- In 2012, about 30 million people were protected through PMI-supported IRS operations in 16 countries.

Malaria case management

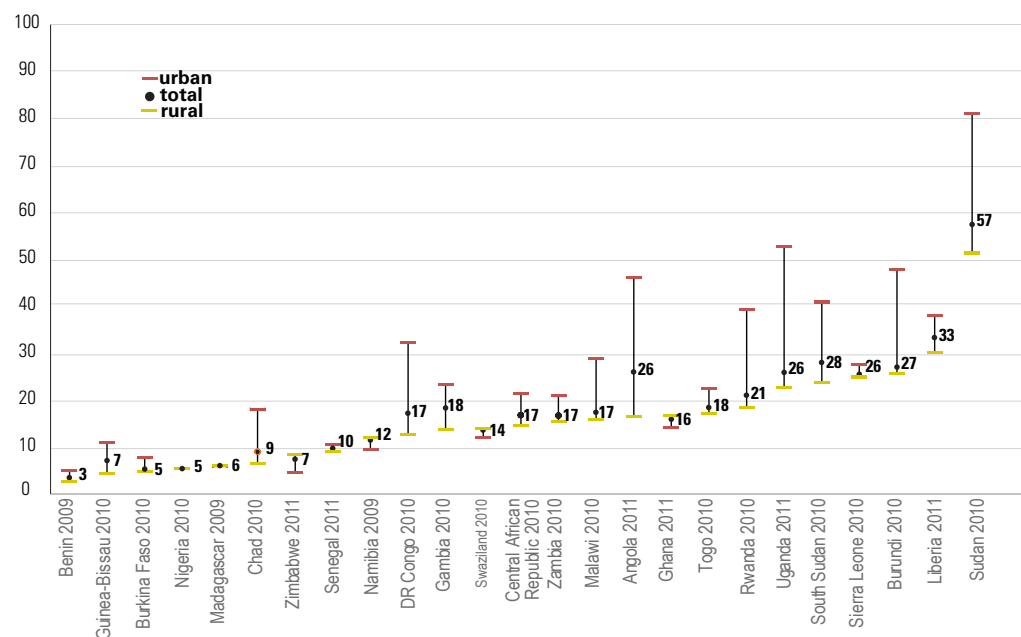
Malaria case management across sub-Saharan Africa

In 2010, WHO started recommending use of diagnostic testing to confirm malaria infection in all age groups and administer appropriate treatment based on the results. According to the new guidelines, treatment based solely on clinical diagnosis should only be considered when a parasitological diagnosis — either a rapid diagnostic test (RDT) or microscopy - is not accessible.

Diagnostic testing for malaria

- The use of RDTs or microscopy to diagnose malaria is still low, especially in rural areas.
- Diagnostic testing is crucial to avoid unnecessary consumption of antimalarial drugs, which increases the risk of malaria parasite resistance.
- The proportion of children under five with fever receiving a finger or heel stick for malaria testing varies across countries in Africa. Coverage ranges from less than 5 per cent to over 50 per cent with rural areas lagging behind.

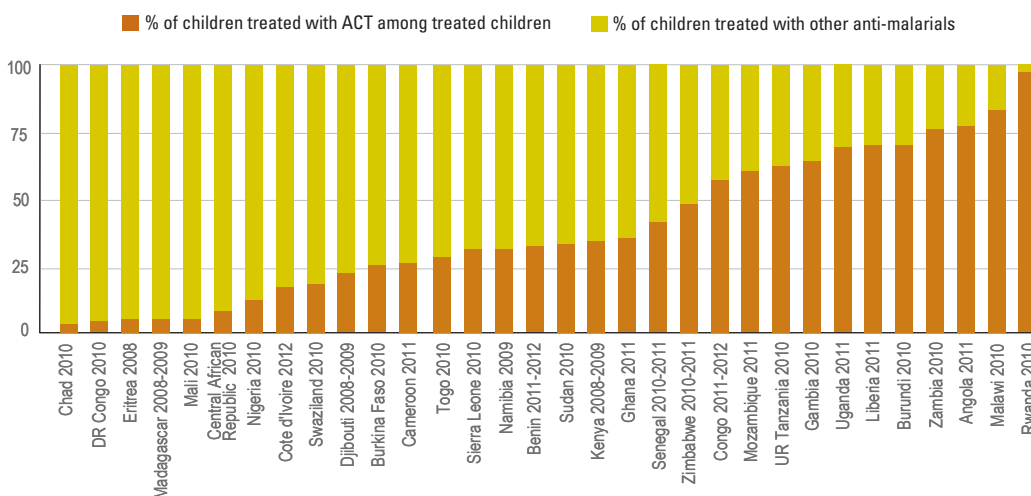
Percentage of children under five with fever receiving a finger or heel stick for malaria testing, African countries with available data 2009-2012



Despite improving treatment rates, many African children are still given less effective medicines

- As of 2011, in most African countries artemisinin-based combination therapy (ACT) is the first-line drug against *P. falciparum* parasite — the most dangerous and most prevalent form of malaria in sub-Saharan Africa.
- Among febrile children under five treated with any anti-malarial, the percentage receiving ACTs varies across countries in Africa, ranging from less than 5 per cent to more than 90 per cent.
- UNICEF is focusing on ensuring that children have access to anti-malaria treatment and diagnosis by supporting countries to scale up integrated community case management (iCCM).

Percentage of children under five with fever receiving artemisinin-based combination therapy (ACT) of those who received an antimalarial drug, African countries 2009-2012



Malaria in pregnancy

Reducing neonatal and maternal mortality through antimalarial interventions

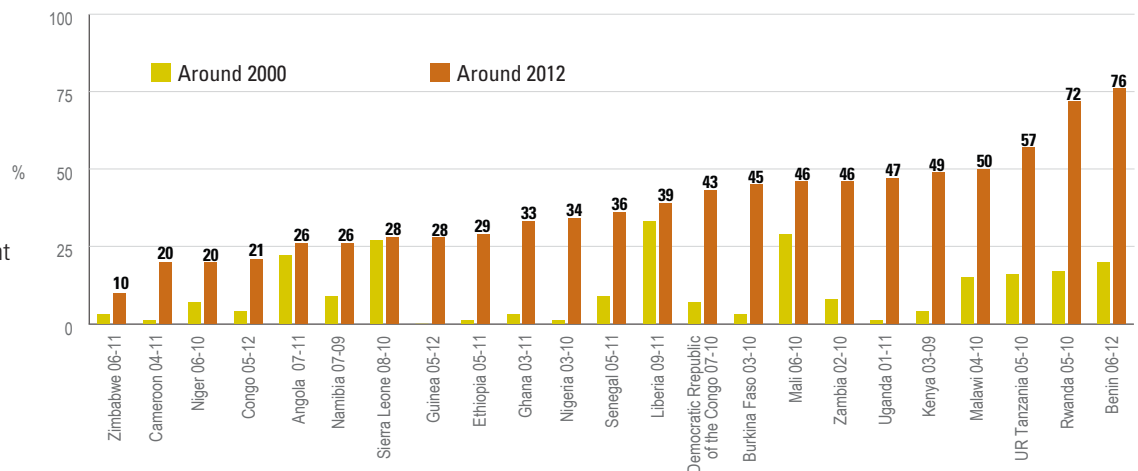
In malaria endemic African countries, pregnant women are highly vulnerable to malaria infection due to reduced immunity. When infected with malaria during pregnancy, they are more likely to be anaemic and give birth to low birthweight or stillborn babies.

Regular use of ITNs by pregnant women as well as intermittent preventive treatment during pregnancy (IPTp) are vital interventions in the prevention of malaria among pregnant women in endemic areas.

Too few pregnant women are sleeping under ITNs in Africa

- Although some progress has been made, across sub-Saharan Africa the percentage of pregnant women sleeping under an ITN remains too low.
- In most malaria endemic countries in Africa, less than 40 per cent of pregnant women are sleeping under ITNs. Only a few countries have achieved coverage levels of over 70 per cent.

Percentage of pregnant women sleeping under an ITN, African countries with two data points, 2000-2012



Missed opportunities – Antenatal care is an effective way to deliver malaria interventions for pregnant women but it is often not used

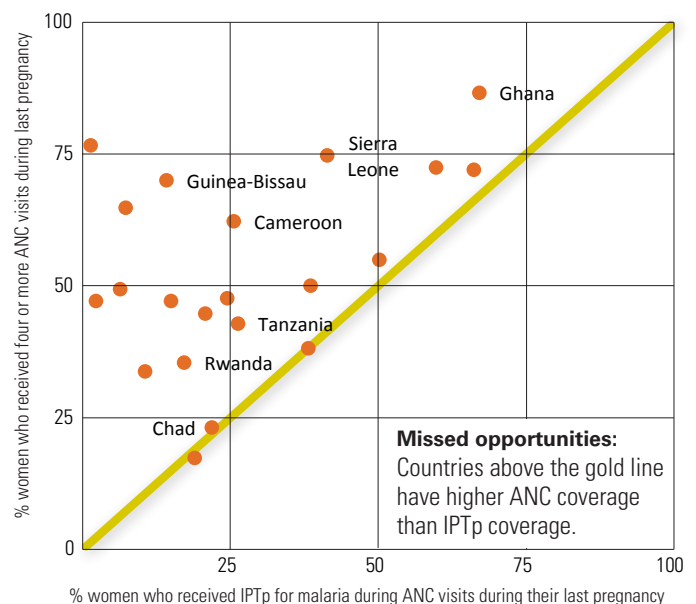
- Preventing malaria in pregnant women through IPTp with sulfadoxine pyrimethamine (SP) is an effective way of reducing maternal anaemia and low birthweight.
- In malaria endemic countries IPTp should be administered to pregnant women during antenatal care visits. However, in most countries there is a big gap in the provision of the two services. Some countries have similar coverage of ANC and IPTp but the overall levels are still unacceptably low.
- The new WHO recommendation is to have IPTp at each scheduled antenatal visit after the first trimester.

About the chart

In the chart, the gold line represents equal coverage levels of ANC and IPTp. Countries above the line have higher ANC coverage than IPTp coverage.

- Each dot represents a country.
- The horizontal axis shows the percentage of women who received IPTp for malaria during their last pregnancy (at least two doses of SP during antenatal care visits).
- The vertical axis shows the percentage of women who received four or more antenatal care visits during their last pregnancy.

Percentage of women who received IPTp for malaria during ANC visits during their last pregnancy and percentage of women who attended four or more ANC visits by any provider, African countries, 2009-2012



Missed opportunities: Countries above the gold line have higher ANC coverage than IPTp coverage.

Malaria indicators

Countries or territories	Prevention					Case Management		Source
	Vector control			Malaria in pregnancy		Diagnosis	Treatment	
	Households with at least one ITN	Households with at least one ITN or sprayed with IRS	Children sleeping under ITNs	Pregnant women sleeping under ITNs	Intermittent preventive treatment for pregnant women	Febrile children who had a finger or heel stick for malaria testing	Receiving ACT among febrile children who received any antimalarial drugs	
	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	
Angola	35	38	26	26	18	26	77	MIS 2011
Benin	80	..	71	76	23	3	32	DHS 2011-2012p
Burkina Faso	57	57	47	45	11	5	25	DHS 2010
Burundi	52	..	45	50	..	27	70	DHS 2010
Cameroon	36	..	21	20	26	..	26	DHS-MICS 2011
Central African Republic	47	..	36	40	38	17	9	MICS 2010
Chad	42	..	10	10	22	9	3	MICS 2010
Congo	27	..	26	21	22	..	57	DHS 2011-2012p
Côte d'Ivoire	68	..	39	40	18	..	17	DHS 2012p
Democratic Republic of the Congo	51	..	38	43	21	17	4	MICS 2010
Djibouti	30	..	20	25	..	..	22	MICS 2008-2009
Eritrea	71	..	49	..	..	..	5	MIS 2008
Ethiopia	47	57	30	29	..	20	27	MIS 2011
Gabon	70	..	55	36	..	..	..	Other 2008
Gambia	51	71	33	26	66	18	64	MICS 2010
Ghana	48	..	39	33	67	16	35	MICS 2011
Guinea	47	..	26	28	18	..	5	DHS 2012p
Guinea-Bissau	53	..	36	32	14	7	..	MICS 2010
Kenya	56	59	47	49	15	..	34	DHS 2008-2009
Liberia	50	54	37	39	50	33	70	MIS 2011
Madagascar	57	..	46	46	6	6	5	DHS 2008-2009
Malawi	58	58	55	50	60	17	89	MIS 2010 <i>DHS 2010</i>
Mali	77	..	46	46	51	..	5	MICS 2010
Mauritania	12	..	28	..	..	..	5	MICS 2007
Mozambique	28	35	18	20	19	..	60	DHS 2011
Namibia	54	..	34	26	5	12	31	MIS 2009
Niger	61	..	20	20	35	..	83	DHS 2012p
Nigeria	42	42	29	34	13	5	12	MIS 2010
Rwanda	82	57	70	72	17	21	97	DHS 2010
Sao Tome and Principe	61	..	56	57	60	..	..	DHS 2008-2009
Senegal	63	66	35	36	39	10	41	DHS-MICS 2010-2011
Sierra Leone	36	37	30	28	41	26	31	MICS 2010
South Sudan	34	54	25	36	19	28	51	MICS 2010
Sudan	25	..	28	..	2	57	33	MICS 2010
Swaziland	10	16	2	1	1	14	18	MICS 2010
Togo	57	57	57	46	50	18	28	MICS 2010
Uganda	60	62	43	47	25	26	69	DHS 2011
United Republic of Tanzania	64	..	64	57	26	..	62	DHS 2010
Zambia	64	73	50	46	69	17	76	MIS 2010
Zimbabwe	29	36	10	10	7	7	48	DHS 2010-2011

Source: UNICEF global databases 2013, based on DHS, MICS, MIS and other nationally representative sources as of April 2013.

DHS: Demographic Health Surveys, MICS: Multiple Indicator Cluster Surveys, MIS: Malaria Indicator Survey.

Indicators presented in this table are the standard malaria MICS/DHS/MIS indicators. For specific definitions please refer to www.childinfo.org/malaria

Visit www.childinfo.org for more information on malaria data and monitoring through Multiple Indicator Cluster Surveys (MICS)

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- Major progress in ITN use among children in sub-Saharan Africa during the last decade from less than 5 per cent to over a third with large country variation

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“Invest in the Future: Defeat Malaria”

Roll Back Malaria Partnership

“The global campaign against malaria has shown what is possible when the international community joins forces on multiple fronts to tackle a disease that takes its heaviest toll on poor and underprivileged populations... The advances of recent years show that the battle against malaria can be won.”

— UN Secretary General Ban Ki-Moon