The Disease of Malaria (Globally)

Malaria is a common, and deadly tropical, disease transmitted through the bites of infected mosquitoes.

From the CDC Website:

“Malaria is one of the most severe public health problems worldwide. It is a leading cause of death and disease in many developing countries, where young children and pregnant women are the groups most affected.”
Malaria is a public-health problem in more than 109 countries in the world, 45 of which are in Africa.

- 3.3 billion people (40% of the earth’s population) live in areas where malaria is a constant threat (CDC)
- 216 million cases of malaria in 2010
- 106 malaria-endemic countries in 2010
- 99 of these countries had ongoing malaria transmission.
- 45 countries around the world have identified resistance to at least one of the four classes of insecticides used for malaria control (WHO)
- 250,000,000-300,000,000 million cases (est) of malaria each year
- Has killed up to a 1,000,000 people each year (CDC, WHO, ERD)
- 86% of malaria deaths occur in children under 5 years old (CDC)
- A child dies from malaria every 45-60 seconds!!!!!! (ERD)
- Malaria is the 5th cause of death from infectious diseases worldwide (after respiratory infections, HIV/AIDS, diarrheal diseases, and tuberculosis) in low-income countries.
- 35 countries (30 in sub-Saharan Africa and 5 in Asia) account for 98% of global malaria deaths (CDC)
## World Health Organization Statistics - 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Cases</th>
<th>Estimated deaths</th>
<th>Deaths/1,000 cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African Region</strong></td>
<td>174,000,000</td>
<td>596,000</td>
<td>3.43</td>
</tr>
<tr>
<td>South-East Asia Region</td>
<td>28,000,000</td>
<td>38,000</td>
<td>1.36</td>
</tr>
<tr>
<td>Eastern Mediterr Region</td>
<td>10,000,000</td>
<td>15,000</td>
<td>1.50</td>
</tr>
<tr>
<td>Western Pacific Region</td>
<td>2,000,000</td>
<td>5,000</td>
<td>2.50</td>
</tr>
<tr>
<td>Americas Region</td>
<td>1,000,000</td>
<td>1000</td>
<td>1.00</td>
</tr>
<tr>
<td>European Region</td>
<td>200</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>215,000,200</td>
<td>655,000</td>
<td></td>
</tr>
</tbody>
</table>
Africa is the most affected due to a combination of factors (a so-called perfect storm):

- A very efficient mosquito (Anopheles gambiae) is responsible for high transmission.
- The predominant parasite species is Plasmodium falciparum, which is the species that is most likely to cause severe, life-threatening malaria.
- Local weather conditions often allow transmission to occur year round.
- Scarce resources and socio-economic instability have hindered efficient malaria control activities.
- Drug Resistance
- Limited access to remote areas

Source: CDC, WHO, Yours Truly
First : THE MOST VULNERABLE

- Those with little immunity against malaria
- In high transmission areas (such as sub-Saharan Africa), the most vulnerable groups are:

- **Young children** (who have not yet developed partial immunity to malaria)
- **Pregnant women** (whose immunity is decreased by pregnancy, esp 1st & 2nd)
- **Travelers or migrants** (coming from areas with little or no malaria transmission)
Children: THE MOST VULNERABLE
(They have not yet developed partial immunity)

Kenyan Coast
(stable malaria area)
WHAT’S THE IMPACT ON AFRICA ?????
• WHAT’S THE IMPACT ON AFRICA ???????

Malaria and poverty are intimately connected
- a root cause of poverty
- a consequence of poverty,

Malaria is most intractable for the poorest countries in the world.
WHAT’S THE IMPACT ON AFRICA ?

- Around 90% of malaria related deaths occur in Africa.
- Malaria is Africa's leading cause of under-five mortality (20%).
- It accounts for:
  - 40% of public health expenditure
  - 30-50% of inpatient admissions
  - up to 50% of outpatient visits in areas with high malaria transmission
WHAT’S THE IMPACT ON AFRICA ???

• Malaria costs Africa about $12 billion a year in economic output.

• Almost all the rich countries are outside the bounds of intensive malaria.

• Studies show that malaria (endemic) countries in Africa have growth rates of up to 1.3% less than other countries that are not malaria endemic. For many countries in Africa this means negative growth rates.

• Indirect costs
WHAT’S THE IMPACT ON AFRICA ????
(Indirect costs/effects - examples)

Children:
• Impairs schooling (absenteeism)
• Impairs brain development from neurological damage

Economic drags:
• Preference by individual farmers/households to plant subsistence crops rather than more labor-intensive cash crops because of malaria's impact on labor during harvest season.
• Undeveloped markets due to traders' unwillingness to travel to and invest in malaria endemic areas.
• Undeveloped tourist industry due to reluctance of travelers to visit malaria-endemic areas.
AFRICA RAVAGED

• Just seven countries* account 66% of all cases worldwide!

• Just six countries** account for 60% of all malaria deaths worldwide.

* Democratic Republic of Congo, Ethiopia, Kenya, Nigeria, Southern Sudan, Tanzania and Uganda

** Nigeria, Democratic Republic of Congo, Burkina Faso, Mozambique, Cote d'Ivoire and Mali
Time Magazine Article (Worth Reading)

• Title: Battling a Scourge ("The World’s Most Malarial Town")
• Reporter: Alex Perry
• Date: Thursday, Jun. 10, 2010

To access the article click on the link below:
http://www.time.com/time/specials/packages/article/0,28804,1995199_1995197_1995176,00.html

THEN

To access the accompanying photo essay click on the link below:
http://www.time.com/time/photogallery/0,29307,1995167,00.html
2000 and before

• 2000: African Heads of State met in Abuja, Nigeria to translate Roll Back Malaria’s goal of halving the malaria burden by 2010 into tangible political action.
• The Abuja Declaration endorsed a concerted strategy and established a series of interim targets
• And agreed to hold other partners responsible.

Since 2000:

• More than half the malaria-endemic African countries (with population at risk) have established Country Strategic Plans (CSPs) to achieve the targets set in Abuja.
• CSPs are all based on technical elements and evidence-based interventions:
  • prompt access to effective treatment,
  • promotion of insecticide-treated nets (ITNs)
  • improved malaria control,
  • prevention and management of malaria in pregnancy and
  • improving the prevention of, and response to, malaria epidemics and malaria in complex emergencies.
• Countries are now working through local partnerships to develop the capacity to fully implement CSP
• CSPs have been successful in attracting new resources for malaria control.
• Death from malaria has decreased by 33% in the WHO African Region.

• There were an estimated 655,000 malaria deaths in 2010, which is 36,000 lower than the estimated mortality in 2009 (a 5% year-on-year reduction).

• Out of 99 countries with ongoing malaria transmission, 43 recorded decreases of more than 50% in the number of malaria cases between 2000 and 2010.

• In October 2011, Armenia was certified as free of malaria

  (United Arab Emirates 2007, Morocco 2010, Turkmenistan in 2010.)
Factors contributing to decrease in the number of deaths from among children under 5
  • Availability longlasting insecticidal nets,
  • indoor residual spraying, and
  • better access to diagnostic testing and effective treatment
  • Socio economic improvements

Insecticidal nets delivered to malaria-endemic countries in sub-Saharan Africa:

An estimated 50% of households in sub-Saharan Africa now have at least one bed net
96% of persons with access to a net use it

Global deaths from malaria have fallen:
  nearly a 1,000,000 (2000) ➔ 655,000 in 2010. (34.5%)

YET: Death Statistics are disconcertingly high for a disease that is entirely preventable and treatable.
International funds for malaria control reached $1.7 billion in 2010 and $2 billion in 2011.
International funds for malaria control reached $1.7 billion in 2010 and $2 billion in 2011

BUT
International funds for malaria control reached $1.7 billion in 2010 and $2 billion in 2011. However, they remained significantly below the $5-6 billion that would be needed annually to achieve global malaria targets.
International funds for malaria control reached $1.7 billion in 2010 and $2 billion in 2011.

BUT

remained significantly below the $5-6 billion that would be needed annually to achieve global malaria targets.

Message:

*There’s a lot more work for us to do!*
We’re being asked to participate:

• Eradicate malaria from the world

• Put the nail in the coffin of malaria.
• This Lent help to eradicate malaria in Africa.

• Couple your Lenten Discipline with this effort.
• This Lent help to eradicate malaria in Africa.

• Couple your Lenten Discipline with this effort.
• This Lent help to eradicate malaria in Africa.

• Couple your Lenten Discipline with this effort.
Put a smile on a kid’s face:

It will put one on yours!!!!!!!!!!
Put a smile on a kid’s face:

$12

It will put one on yours!!!!!!!!!!!