Malaria Prevention Basics

Produce by
SOCIETY FOR YOUTH AWARENESS AND HEALTH DEVELOPMENT (SYAHD)

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MALARIA FOUNDATION INTERNATIONAL (MFI)
www.malaria.org
Outline of Discussion

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Background...

- Each year, over 3,000 million people are at risk of contracting malaria
- More than 500 million people suffer from acute disease
- Resulting in more than one million deaths.
- Malaria contributes indirectly to many additional deaths, mainly of young children, through synergy with other infections and illnesses.
- It is a major cause of anaemia in children and pregnant women and of low birth weight, premature births and infant mortality

In sub-Saharan Africa ...

- In endemic African countries,
  - 25% to 35% of all outpatient visits,
  - 20% to 45% of admissions to hospital and
  - 15% to 35% of hospital deaths are due to malaria, imposing a great burden on already fragile health-care systems.

Source: CDC
Why is Malaria so Dangerous?

- Malaria contributes to deaths of one million Africans every year.
- There are four species of Malaria parasites; one in particular, called Plasmodium Falciparum can be fatal to humans.
- If a person becomes infected with Malaria, they could get complications and possibly die within less than 2 days of getting the infection.

Who is at most risk for Malaria?

The groups at greatest risk of getting sick and dying of malaria:

- Pregnant women: Pregnancy reduces a woman’s ability to fight off malarial infection
- Infants and Young Children: due to immature immune systems

How is Malaria transmitted?

Malaria causing organisms are carried from person to person by a certain kind of mosquito, called the *Anopheles Mosquito* that usually bites at night.
**Lifecycle of the Malaria – Carrying Mosquitoes**

- The mosquito lays eggs on the surface of water
- Then the larval form of the mosquitoes start to grow and develop
- Until an adult mosquito emerges at the water surface

**Malaria transmission in humans: 2 host cycle**

*Source: WHO*
Common Symptoms of Malaria

Could have one or more of the following symptoms:

- Fever - Most common symptoms of malaria (cold and shivering)
- Headache
- Pain in the joints
- Loss of appetite
- Vomiting
- Diarrhea
- Convulsions (fits)

How Is Malaria Diagnosed?

- Malaria is recognized by signs and symptoms manifested in the patients
- Only way to know for sure is by taking blood samples from the patient
  - Examination of blood under a microscope
  - Run specialized blood tests to detect infection

Source: WHO
How is Malaria treated?

- Malaria can be treated with combinations of “antimalarial” tablets depending on the recommended drugs.
- Different medications are used in different parts of the world, since some medications work better in certain regions.
- If patients cannot take pills orally, then they can be treated with intravenous, or “drip” medications in the hospital.
- Consult a medical doctor for appropriate treatment choice.

How can Malaria be prevented?

- There are prevention interventions that can save many people from getting sick or dying from Malaria; the most common being:
  - Avoiding standing water in the household.
  - The Use of Treated Malaria nets in the home.
  - Cutting long grasses.
  - Clearing mosquito breeding ground.
  - Promote education and public awareness.
  - Use of Intermittent Prevention Therapy (IPT) for pregnant women.
- Often communities do not have education about these interventions, do not have enough money to pay for them or cannot access the preventive interventions.
- This lack of education and access make preventing malaria difficult in developing countries.

Prevention: Avoid Standing Water

- Since Malaria Mosquitoes can lay eggs and breed on water surfaces, it is important to educate communities how they can minimize the amount of standing water around and in their homes.
- People can be educated to remove or cover standing water in cans, cups, and rain barrels around houses. Mosquitoes that breed in irrigation water can be controlled through careful water management.
Prevention: Malaria Nets as an Intervention

- Sleeping under an Insecticide treated nets (ITNs) greatly reduces the chance of being bitten by the mosquitoes which carry the disease. They are cost effective and have helped reduce overall infant deaths in Africa by 20%. Unfortunately, many people in Nigeria have not been using these nets.

Malaria Nets as an Intervention

- Insecticide treated or “dipped” nets can help to protect individuals from Malaria and other diseases caused by mosquitoes.
Proper Use of Malaria Nets

Nets should be used every night, all year round, even if mosquitoes are not seen or heard. You never know when a malaria mosquito might bite.

Importance of Proper Use of Nets

• Do not use a net that has not been dipped in insecticide
  *If the net is not treated, mosquitoes and other insects will still fly around making noise, which disturbs your sleep*

• Do not use a net that has multiple holes in them
  *Mosquitoes can bite your skin through the net or may get inside the net.*

• Do not forget to tuck in the edges of the net before sleeping

Source: WHO
Types of Malaria nets

- There are short lasting nets and long lasting nets available for use.
- Whenever possible it is best to get long-lasting insecticide treated nets because they can last up to 4-5 years at a time.

In-door Residual Spraying (IRS)

► Spraying the inside of houses (walls) with effective insecticides
► Just before the peak transmission season
► Requires:
  - Skilled manpower
  - Appropriate techniques in Handling
  - Sustainable efforts
► Safety of insecticides
► Capita intensive

Source: WHO
Environmental Management to reduce breeding sites e.g. Aerial Spray and Sanitation...

Education is critical to End Malaria

The Malaria Foundation International (MFI) is emphasizing the critical importance of health education as a component for any successful disease control strategy, and this is especially for malaria, which is a preventable and treatable disease.

The MFI has recognized that lack of knowledge about malaria is a common finding in malaria endemic regions, and this can be treated to the frequent lack of education about malaria in schools. Students, teachers and community leaders can stimulate youth to become instrumental in the fight against malaria.

Student Leaders Against Malaria (SLAM)

The Student Leaders Against Malaria (SLAM). A special aspect of this network is that students from countries at risk for malaria, partner with students in malaria-free countries. This educational approach to help “end malaria” is also an empowering means to increase students awareness of global issues and teach important leadership and networking skills.
SLAM students will not only promote malaria awareness, advocacy and education, but have the potential of the broadening horizons of children who may otherwise never have had these learning and interactive opportunities. The parents of the majority of the students from the malaria endemic regions are illiterate; hence the focus on the children is also very important to pass on the education.

The SLAM network is making headway in India and in many African countries where malaria remains a leading cause of death.

**Important Role of SLAM to End Malaria**

- SLAM will develop leadership skills of students who will grow the project
- Forming an End Malaria Blue Ribbon club in their respective schools and communities
- Organizing weekly, or monthly end malaria quiz or debate
- Nurture an interest in Ending Malaria” locally, regionally, nationally, and internationally through participation in the global SLAM network
- Sharing experiences in the fight against malaria with other students around the globe
- Distribution of Long Lasting nets-especially to high risk groups: children, and pregnant women
- Teach early recognition of malaria symptoms and encourage individual to seek treatment if needed
- To help community members to avoid open containers of water and refuse dumps in their homes

**Join**

**Student Leaders Against Malaria**

[www.malaria.org](http://www.malaria.org)