## Challenges and quality of ANC in high burden malaria countries and capacity to incorporate MIP activities

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#### Overview

- Magnitude of mortality from malaria in SSA
- WHO models for ANC and MIP
- MIP coverage in sub-Saharan Africa
- Why MIP matters to MNCH Community
- Challenges (community, facility, programme, and policy level)
- Opportunities
- Indicators



# Magnitude of mortality from malaria in SSA

- 30 million pregnancies in SSA
- 10,000 maternal deaths
- 220,000 infant deaths



Source: WHO 2012

# WHO package of interventions for the prevention and control of MIP

- Use of insecticide treated nets (ITNs) to prevent infection
- Intermittent Preventive Treatment (IPT) to prevent asymptomatic infections among pregnant women in areas of high P falciparum endemicity
- Effective case management for malaria illness and anaemia



Source: WHO/AFRO (2004):

http://www.who.int/malaria/publications/atoz/afr mal 04 01/en/index.html

## WHO guidelines for ANC in malaria-endemic areas

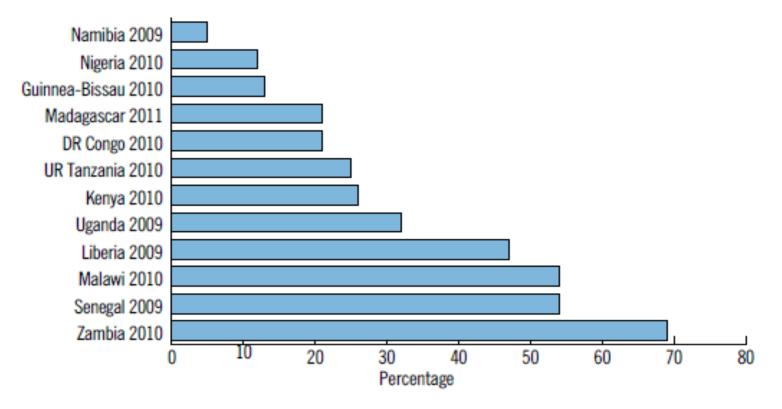
- 4+ visits for low risk women
- Visits around 8-12, 26, 32 and 38 weeks.
- IPT at 26 weeks and 32 weeks
  - -additional dose(s) of IPT in high HIV prevalence settings
- Target coverage= 80%



Source: WHO/AFRO (2004):

http://www.who.int/malaria/publications/atoz/afr\_mal\_04\_01/en/index.html

### Proportion of all pregnant women receiving the second dose of IPTp, 2009-2011

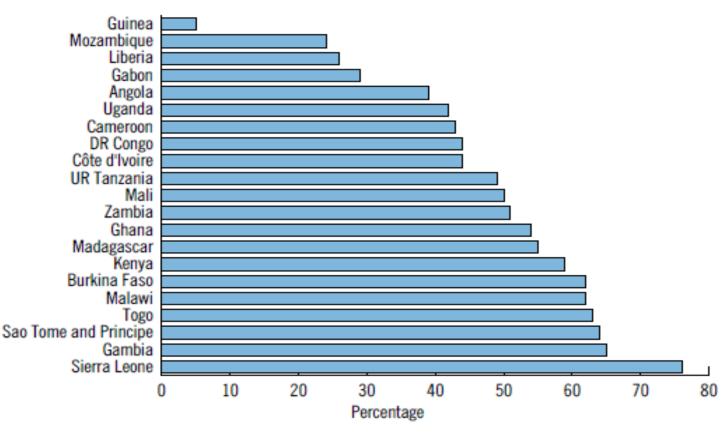


Source: Household survey data



Source: World Malaria Report (2011)

### Proportion of women attending antenatal care receiving the second dose of IPTp, 2010



Source: NMCP reports



Source: World Malaria Report (2011)

# Why MIP Matters to MNCH Community

Clinical outcomes of malaria prophylaxis with IPT-SP:

- Less malaria parasitaemia
- Higher haemoglobin levels
- Decline in placental infection
- Fewer low birth weight babies

Sources: Brentlinger PE at al. (2007)

**Tutu EO et al. (2011)** 

Roll Back Malaria (2011)



#### Prophylaxis with ITNs

#### Correlated with:

- Decrease in number of malaria cases
- Fewer malaria deaths in pregnant women
- Fewer underweight or premature babies



Source: Roll Back Malaria (2011)

#### Challenges to MIP Interventions?

#### At multiple levels:

- Community
- Facility
- Program
- Policy



#### Community-level Challenges

- Poor knowledge about danger of malaria to pregnant woman and fetus
- Late booking and low utilization of ANC
- Perceptions that chemicals used to treat ITNs are dangerous to pregnancies
- Perceptions that adolescent girls are at low risk
- Key family stakeholders (husband, mother-in-law, etc.) show lack of interest in malaria prevention

#### Facility-level Challenges

- Overall quality of care
- Staffing
- Supplies
- Patient education and counseling
- ITN availability
- Cost



# Overload of interventions in ANC for staff

- PMTCT
- STIs (syphilis)
- Tetanus
- Hypertension
- Fetal growth
- MiP



#### Programme-level Challenges

- Development of resistance to sulfadoxinepyrimethamine (SP)
- Quality of SP (risk of low potency and fake drugs on market)
- Shifts in malaria zones due to climactic change
- Co-morbiditiy with HIV infection
- ITNs starting to disintegrate



#### Policy-level Challenges

- Implementation of focused ANC package
- Drug policy and availability
- Harmonisation of vertical initiatives
- Creating and sharing common vision between maternal health and malaria communities

### Opportunities: Improve Messaging on MIP interventions

- How can MIP be framed as a reason compelling enough to warrant earlier ANC visits?
- In locations where malaria is common and expected, how can the severity of its impact on mothers and fetuses be effectively communicated?

### Opportunities: Improve Messaging on MIP interventions

- Explanation of fetal risks of malaria
- Information on use and drug safety of IPTp-SP
- Assuaging of fears about ITN chemicals

....lead to creation of demand for IPT?



#### Opportunities with Providers

- Higher quality face-to-face health education
- Better social mobilization
- Improved practices by health care workers
- Motivating women to attend earlier for ANC

### Indicators to be measured at facilities

- % ANC staff trained in MIP control in the last 12 months
- % health facilities reporting stock-out of the recommended drug for IPT
- % women in ANC receiving a 1<sup>st</sup> dose of IPT under direct observation
- % women in ANC receiving a 2nd dose of IPT under direct observation

# Indicators to be measured in household surveys

- % pregnant women who report having slept under an ITN the previous night
- % of LBW singleton live births by parity
- % of screened pregnant women with severe anaemia in the 3<sup>rd</sup> trimester by parity



**Source: WHO (2007)** 

#### Conclusion

- The challenges faced by MIP interventions in SSA are not technologically complex, but behavioral patters (women, family, providers) are entrenched
- There is potential for increased IPT and ITN coverage by addressing the problems identified at community and health system levels

#### Conclusion

- Logistics issues are solvable
- There are ways to increase and improve training of staff, including working on attitudes
- If we get some key messages right, we are at least half-way there

#### Conclusion

- Policy harmonisation is possible
- Crafting and maintaining strong partnerships between the malaria and MNCH communities is key