Seasonal Malaria Chemoprevention: WHO Policy and Perspectives

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ACCESS SMC Meeting
Transforming the malaria landscape in the Sahel: seasonal malaria chemoprevention
9 June 2016, London, UK
• The Global Malaria Picture
  • 96 countries and territories
  • Half the world at risk (3.2 billion people)

• The burden of malaria is highly concentrated in sub-Saharan Africa (2015)
  • There were an estimated 214 million cases of malaria (range 149–203 million) ≈ 88% in Africa
  • 438,000 deaths (range 236,000–653,000) - 90% in Africa, 67% in children under five

• In 2015, malaria was the fourth highest cause of death among children in Africa (10% of child death in sub-Saharan Africa)
**Key antimalarial interventions & strategies**

**Prevention**
- Insecticide-treated mosquito nets (LLINs)
- Indoor Residual Spraying
- IPT in pregnancy (IPTp)
- IPT in infancy (IPTi)

**Diagnosis & Treatment**
- Parasite based diagnosis
  - Microscopy
  - Rapid Diagnostic Tests
- Artemisinin-based combination therapies (ACTs)

Case management service delivery areas:
- Health facilities
- Community Case Management
- Private sector

**Surveillance, M & E**
- Routine HMIS
- Malaria surveillance and response systems
- Household surveys

**Strengthening health systems in endemic countries**

*Malaria control or elimination tools should always be discussed in the context of the epidemiology of the disease and the desired public health goal and objectives*
Policy timeline ...

• WHO Policy formulation (2012)

• Publication of the field guide to support national adoption and implementation of SMC (2013)

An estimated 25 million children aged 3-59 months could benefit from seasonal malaria chemoprevention every year.
SMC: Definition & Policy Recommendation

• SMC is the intermittent administration of full treatment courses of an antimalarial medicine during the malaria season to prevent malaria illness and deaths
  • The objective is to maintain therapeutic drug concentrations in the blood throughout the period of greatest malaria risk

• Children aged 3 - 59 months,
• Amodiaquine plus sulfadoxine-pyrimethamine (AQ+SP)
• Monthly administration
• Given from the start of the transmission season
• Maximum of four doses per season
Policy Recommendation

- Target areas for implementation is the Sahel sub-region where:
  - malaria transmission is highly seasonal and the majority of clinical malaria cases (>60%) occur during a short period of 3-4 months,
  - the clinical attack rate of malaria is greater than 0.1 attack per transmission season in the target age group, and
  - AQ+SP remains efficacious (>90% efficacy).
Evidence (Expected benefits)*

- Prevents approximately 75% of all malaria episodes
- Prevents approximately 75% of severe malaria episodes
- May result in a decrease in child mortality (one fewer per 1,000)
- Probably reduces the incidence of moderately severe anaemia (19 fewer per 1,000)
- Does not result in an increase in clinical malaria in the following malaria transmission season after one year of administration
- Serious adverse events have not been reported and are probably rare

*Based on results from 7 studies on SMC conducted in areas of highly seasonal transmission of malaria using AQ+SP monthly for up to 4 months during the transmission season in children less than 5 years of age
Current status of implementation

• Policy adoption:
  • 13 countries: Burkina Faso, Cameroun, Chad, Gambia, Ghana, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Nigeria, Senegal and Togo.

• Implementation Status
  • 2012-2013 – slow uptake – policy formulation, etc.
  • 2014 – 8 countries (Burkina Faso, Chad, Gambia, Mali, Niger, Nigeria, Senegal, Togo)
  • 2015 – (planned in all 13 countries, but implementation in 11) – larger scale in the seven ACCESS-SMC countries.

• Challenges
  • Funding (2012-2014)
  • Drugs – AQ+SP (2015)
Gaps / Challenges - knowledge and tools

• **Policy**
  • Target population – e.g. older age group
  • Geographical targeting
  • Rebound effect

• **Tools (antimalarial medicines)**
  • Availability of AQ+SP
    • Quantity
    • Quality
    • Child friendly formulation
  • Resistance to AQ+SP
  • Next generation medicines for chemoprevention
    • Re-tooling existing molecules and medicines
    • New medicines

• **Measuring impact**
  • Programmatic effectiveness of the intervention
  • Efficacy/effectiveness of the antimalarial
Perspectives
MDG 6 target – to halt and reverse the incidence of malaria – has been achieved

• Reductions in mortality rates have been even larger in children under five
• 65% globally and 71% in sub-Saharan Africa
**But the job is far from being completed**

### Insufficient funding

Annually required to achieve global targets for control and elimination

- **5.1 B$**
- **2.5 B$**

Available in 2014 through international and domestic funds

### Far from universal access

- Only ~67% of the at-risk population had access to an ITN in their household
- 15 of the 28M pregnant women at risk did not receive a single dose of IPTp
- Less than 26% children with malaria received an ACT, i.e. ~60 M children went untreated

### Still high incidence & mortality

- ~214 million cases occurred globally
  - Of which, ~88% in the WHO Africa Region,
  - And 8% globally due to *P. vivax*

- ~438 000 malaria deaths occurred worldwide
  - Of which, ~70% occurred in children aged under 5,
  - And 90% in the WHO Africa Region
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<th>Vision: A world free of malaria</th>
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<td>Goals</td>
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<td>1. Reduce malaria mortality rates globally compared with 2015</td>
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<td>2. Reduce malaria case incidence globally compared with 2015</td>
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<td>3. Eliminate malaria from countries in which malaria was transmitted in 2015</td>
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<td>4. Prevent re-establishment of malaria in all countries that are malaria-free</td>
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Going forward….

• Attaining full scale deployment of current interventions including SMC is critical; while investing in new tools and technologies.

• Learning from the lessons of the implantation to date is essential in guiding an effective scale of SMC in the Sahel which should both be rapid and sustainable.

• Mobilising the needed financial resources — (SMC is a time bound intervention – yearly seasonality window)
  • Adequate and timely resources

• Regional approach to implementation
  • Programing
  • Migratory nature of the population
Keep our eye on the prize: a world free of malaria

Thank you