Effectiveness of antenatal clinics to deliver IPTp-SP in ANC

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Overview

• Coverage
  – Where are we now

• Identifying the bottlenecks in delivery and uptake
  – Studies in Kenya and Mali
  – Systematic review of literature

• Using routine HMIS data to identify bottlenecks
  – Studies in Kenya and Mali
  – Protocol??

• Discussion points
Coverage targets

2005 targets
(established at the 2000 Abuja Summit)

At least 60% of all pregnant women who are at risk of malaria:
- use locally appropriate vector control methods;
- have access, especially those in their first pregnancy, to chemoprophylaxis or presumptive intermittent treatment.

2010 targets

At least 80% of all pregnant women who are at risk of malaria:
- are protected using locally appropriate vector control methods;
- are receiving intermittent preventive treatment in areas where malaria transmission is stable.

2015 targets
(approved by the RBM Partnership Board in 2011)

Achieve universal access to and utilization of prevention measures, universal coverage and utilization being defined as:
- every person at risk sleeping under a good-quality ITN or in a space protected by IRS;
- every pregnant woman at risk receiving at least one dose of IPTp during each of the second and third trimesters (in settings where IPTp is appropriate).
IPTp coverage

IPTp coverage 2014 by country and highest coverage ever reached

Coverage 2014 (%)
Highest coverage reached (%)
ITN coverage

ITN coverage 2014 by country and highest coverage ever reached

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Bottlenecks to delivery and uptake: Cross sectional surveys

• Aim:
  • To identify and quantify the major barriers to the scale up and use of interventions to control malaria in pregnancy at the district, facility, and community level
• Study countries: Mali (MRTC) and Kenya (KEMRI/CDC)
  – Household surveys to assess barriers to access (questionnaire and ANC card check)
  – Health facility surveys to assess bottlenecks to service delivery (ANC observations and exit interviews)
Pregnant women factors

- Woman attends ANC in 2nd or 3rd trimester (Not on CTX)

Interaction

- Woman re-attends ANC

Health system/provider factors

- Woman is given 1st dose of SP

- Woman is given 2nd dose of SP

- Woman used an ITN during pregnancy

- 1st dose of SP given by DOT: per policy

- 1st dose of SP given, no DOT

- 2nd dose of SP given by DOT: per policy

- 2nd dose of SP given, no DOT

- Cumulative effectiveness IPTp by DOT &ITN: per policy

- Cumulative effectiveness IPTp (no DOT) &ITN
Community level effectiveness: Kenya

- Reported data, ANC card check
- 89% first attend ANC in eligible trimester (4-9 mo)
- Cumulative effectiveness of 2 doses of SP by DOT 14%
- Reduction in community effectiveness due to missed opportunities of 231 LBW cases averted per 10,000
Community level effectiveness: Mali

- Reported data; ANC card check
- 58% first attend ANC in eligible gestation (4-8 mo)
- Cumulative effectiveness of receipt of 2 doses of SP by DOT 6%.
- Some doses given in 1st trimester (documented + reported)
- Reduction in community effectiveness due to missed opportunities of 228 cases of LBW per 10,000 women
Barriers to uptake: Pregnant women

Individual level factors
• Low knowledge of benefits of IPTp
• Fear of perceived side effects; Experienced side effects
• Lack awareness timing/dosing
• Confusion about which drugs are safe; Perception SP strong /miscarriages
• Poor ANC attendance

Household /cultural factors
• Having to purchase SP/drinks
• Unwilling to reveal pregnancy
• Needing husbands support or consent; Commitments at home (child care)

Health facility factors
• User fees & penalties
• Stock outs of SP
• Not being offered SP by health worker
• ANC cards not being updated properly
• Need to share cup to take medication
• Referred to laboratory
• Taking folic acid and iron sulphate supplementation
Health system

**Intermediate step 1**
- Attends ANC*

**Intermediate step 2**
- SP in stock

**Intermediate step 3**
- Receives SP

**Intermediate step 4**
- Receives 3 tablets of SP

**Intermediate step 5**
- IPTp-SP taken by DOT
  OR
- Has SP at ANC exit and
  knows to take 3 tablets

**ITN**
- Attends ANC for the first visit

- ITNs in stock

- ITN offered

- Takes ITN

*According to national policy IPTp-SP eligibility includes not being in 1st trimester commonly assessed by quickening (estimated at \( \geq 16 \) weeks gestation) as well as not taking cotrimoxazole.
Programme effectiveness of delivery: Kenya

Figure 2. A. Cumulative system effectiveness for the delivery of IPTp-SP by DOT through ANC and B. Cumulative system effectiveness for the delivery of IPTp-SP through ANC either by DOT or pregnant women having 3 tablets of SP at exit and knowing how to take them. Intermediate steps are as follows: step 1, Eligible pregnant women attend ANC in her second trimester; step 2, SP is in stock; step 3, SP is given to the pregnant women; step 4, the correct dose of SP is given (3 tablets); step 5, the pregnant women take IPTp-SP by DOT (A) or either by DOT or pregnant women having 3 tablets of SP at exit and knowing how to take them (B).
Programme effectiveness of delivery: Mali

Figure 2: Proportion of pregnant women of 4 to 8 months gestation on their first visit to ANC who received IPTp-SP

Note P1=Attend ANC; P2=receive any SP (sulphadoxine-pyrimethamine); P3=receive 3 tablets of SP; P4=A. Take by DOT (Directly Observed Therapy), B. Take by DOT or take the tablets home
Interviews with health providers: Mali

• Guidelines – lack of knowledge, misinterpretation, insufficient guidance

• Side effects of SP - substantial worry for providers
  – don’t give on empty stomach
  – don't give at all OR give tablets to take at home even if don’t believe women will take them?

• Not giving by DOT institutionalised......
Barriers to delivery: Health system

Individual level factors:
- Confusion about timing & dosing
- Low knowledge of IPTp strategy; of side effects & contraindications of SP
- SP distributed regardless of gestational age; Imprecise estimation of gestational age
- Perception that women will not take SP on empty stomach

Organisational factors:
- Staff too busy to distribute SP
- Lack of water cups at facility
- Health instructions about malaria not given in local language
- Variation in guidance given to staff
- IPTp guidelines not available

Health system factors:
- SP stock outs
- Lack of supervision
- User fees for IPTp
- Lack of recent IPTp training
- Private healthcare facilities dispensing other malaria drugs
- Incompatibilities of IPTp with other health programs
Conclusions and implications

• We are not making the most of women who do access ANC
• Knowledge on malaria, IPTp and ITNs important for both providers and pregnant women
• Many of the obstacles to IPTp-SP delivery are relatively simple (individual or organisational level) barriers that can be resolved in the short term

• What comes next is more complex…. *tomorrow morning
WHO 2012 policy update: Policy brief

- At each scheduled ANC visit
- First dose as early as possible during the 2nd trimester
- At least 1 month apart
- Last dose can be administered up to the time of delivery, without safety concerns
- Directly observed therapy
- Can be given on empty stomach
- Not with folic acid 5 mg

- IPTp can be given on an empty stomach or with food
- Woman presenting to ANC with symptoms of malaria should be investigated before administration of IPTp-SP
- Side effects should be discussed openly and managed in the ANC
What can programmes do to increase delivery effectiveness?

Routine data for assessing programme effectiveness

• Two districts in Kenya and Mali
• Review of indicators required to assess effectiveness of delivery of IPTp-SP (2012 policy update), ITNs and case management
• Development of list of indicators*
• Adapted data collection tools in all health facilities
  – Modified ANC register + SOP
  – Collation from the ANC registers into daily tally sheets for nurses

AIM: To integrate within DHIS-2
MiP Indicators, all by trimester

• ANC clients (1,2,3,4,4+ visits)
• Given IPTp (1,2,3,4) by DOT; not by DOT
• Given ITN
• Clinical malaria
• Suspected malaria given test (RDT or microscopy)
• Tested +ve (RDT or microscopy)
• Clinical malaria given antimalarial (ACT, quinine, other)
• Confirmed malaria given antimalarial (ACT, quinine, other)
• No of pregnant women in catchment area
**Monitoring and Evaluation**

**Assessed for completeness, accuracy and validity**

- Data collected in health facility registers and collated at the facility level to send to district level assessed for completeness & accuracy over one year
  - Data completeness was assessed as the proportion of all health facilities reporting to the DHIS2 on each indicator monthly
  - Data accuracy between the monthly reports sent to the District with records in the facility ANC register (tallied by monitor)

- Data validity assessed using exit interviews with pregnant women and ANC card checks in a cross sectional survey**

- In depth interviews with health providers**

**analysis ongoing**
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Discussion points

• How to improve coverage (delivery and uptake) now, recognising that what comes next is more complex?
• Has WHO 2012 updated ‘simplified’ policy made a difference?
• What indicators are being used now?
• Potential of DHIS-2….