Improving Pregnancy Outcomes: Alleviating Stock-Outs of Sulfadoxine-Pyrimethamine in Bungoma, Kenya

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Malaria Policy in Kenya

All pregnant women in malaria-endemic areas:
- Receive free intermittent preventive treatment of malaria in pregnancy using sulfadoxine-pyrimethamine (IPTp-SP).
- Have access to free malaria diagnosis and treatment when presenting with fever.
- Have access to long-lasting insecticidal nets.

Kenya Malaria Strategy 2009–2017

Providing IPTp at antenatal clinics:
- Annual quantification of SP and supply of IPTp to endemic areas conducted.
- Training of antenatal care (ANC) service providers conducted in malaria-endemic districts on provision of IPTp.
- Community health volunteers (CHVs) provide information, education and communication and behavior change communication (IEC/BCC) materials and refer pregnant women to ANC.
- Appropriate IPTp messages and materials will be developed and disseminated as part of the integrated IEC/BCC campaign in malaria-endemic areas.

Key Achievements between 2009–2014

Malaria-endemic areas:
- Targeted implementation of IPTp only in the high malaria-endemic regions
- Malaria in pregnancy (MIP) guidelines revised
- Adequate supply of SP
- Maternal and child health service providers trained on provision of IPTp-SP as per national guidelines
- CHVs trained on MIP messaging to sensitize pregnant women to start IPTp early in second trimester

Major Challenges between 2009–2014

- Late start of ANC attendance
- Poor data management and reporting at health facilities
- Lack of incentives for CHVs to promote MIP
- Limited private sector facilities providing IPTp
- Diverse practices among health care workers in provision of IPTp-SP as per national guidelines

Percentage of pregnant women who took IPTp1 dose at different weeks of pregnancy

Strategic Direction between 2014–2018

The Kenya Malaria Strategy was revised to reflect the following:
- All pregnant women in the 14 malaria-endemic counties shall receive at least three doses of IPTp-SP
- Annual quantification of SP based on consumption to ensure adequate supplies
- Training, retraining and supervision of health care workers
- Dissemination of appropriate IPTp messages and materials

IPTp Coverage

Increase in IPTp coverage was much higher between 2010–2015 compared to 2007–2010:

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<tr>
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<tbody>
<tr>
<td>IPTp1</td>
<td>16%</td>
<td>15%</td>
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<tr>
<td>IPTp2</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>IPTp3</td>
<td>4%</td>
<td>12%</td>
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Trends in IPTp coverage in malaria-endemic areas

Provision of MIP Services at the County Level

- Provision of health care services devolved to county governments in 2013.
- Counties continued to receive SP from national-level stocks through the “push system.”
- SP had an expiry date of December 2014 and therefore could not be supplied after June 2014.
- Counties started experiencing SP stock-outs as of October 2014.

Mitigation Measures

- SP stock-outs from October 2014 to February 2015:
  - Pregnant women who received IPTp decreased from 7,845 to 3,865.
- Counties and facilities procured SP supplies from March 2015 to July 2015:
  - Pregnant women who received IPTp increased from 3,865 to 8,404.
- SP stock-outs from August 2015 to February 2016:
  - Pregnant women who received IPTp decreased from 8,404 to 3,445.
- Although the national level procured SP in November 2015, supplies did not reach counties until February 2016. As the national level, PMI and UNICEF procured enough SP stock to last the country until 2019–2020.

Conclusions

- Bungoma County applied feasible mitigation measures to alleviate SP stock-outs through:
  - Procurement of SP at the county level;
  - Supplemented by additional procurement at the health facility level; and
  - Distribution of SP from the national level.
- This is a practice that is replicable in other counties to ensure continued availability of SP to protect pregnant women from the effects of MIP.
- Commodity insecurity is a threat to adequate service delivery.

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- PMI/USAID Kenya

Abbreviations

ANC = antenatal care
BCC = behavior change communication
CHV = community health volunteer
IEC = information, education and communication
IPTp = intermittent preventive treatment in pregnancy
KMIS = Kenya Malaria Indicator Survey
MIP = malaria in pregnancy
PMI = U.S. President’s Malaria Initiative
SP = sulfadoxine-pyrimethamine
USAID = United States Agency for International Development

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