Maternal Health Knowledge Cafe

• Summarize key facts related to maternal health
• Understand the state of evidence related to maternal health service delivery at the community level
• Discuss experiences and gaps for implementation and for learning/research
Maternal Health Task Force

The Maternal Health Task Force strives to create a strong, well-informed and integrated community of individuals around the globe focused on ending preventable maternal mortality and morbidity worldwide.
Maternal Health: A continued challenge

Maternal deaths per 100,000 live births (MMR), 2015

Source: Trends in maternal mortality: 1990 to 2015
Maternal Health: When and how are women dying?

Causes of maternal mortality, 2013

Maternal Health and the Sustainable Development Goals

Goal 3: Ensure healthy lives and promote well-being for all at all ages
- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- By 2030, no country should have a MMR greater than 140 per 100,000 live births

How? Good quality, evidence-based, affordable, and respectful maternal health services for every woman, everywhere
Maternal Health and the Life Cycle

Good quality, evidence-based, affordable, and respectful maternal health services for every woman, everywhere AND during:

- Preconception
- Newborn
- Childhood
- Adolescence

Source: MARCH | Centre for Maternal Adolescent Reproductive & Child Health @ LSHTM
What is the State of Evidence for Community-Based Maternal Health Service Delivery?

We now have substantial evidence showing that community health workers can reduce maternal mortality.

We also have important evidence showing that community-based family planning can reduce maternal mortality.
Community-Based Service Delivery

**PREPREGNANCY**
- Folic acid supplementation via supplementation or fortification
- Tetanus toxoid immunization
- Intermittent preventative treatment in pregnancy (IPTp)
- Calcium supplementation
- Syphilis detection and treatment
- Micronutrient supplementation
- Balanced energy and protein supplementation

**PREGNANCY**
- Clean birth practices
- Immediate assessment and stimulation
- Neonatal resuscitation

**BIRTH**
- Promotion of breastfeeding
- Clean postnatal practices
- Chlorhexidine umbilical cord treatment
- Thermal care
- Antibiotics for neonatal sepsis

**NEONATAL**
- Education and provision of complimentary foods
- Vitamin A supplementation
- Zinc supplementation
- Immunization for vaccine-preventable diseases
- Hand washing with soap
- Safe disposal of children's stools
- Use of insecticide-treated nets or indoor residual spraying

**CHILDHOOD-PREVENTION**
- Oral rehydration solution for childhood diarrhea
- Vitamin A for treatment of childhood diarrhea
- Zinc for treatment of diarreha
- Antibiotics for dysentery
- Oral antibiotics for pneumonia
- Treatment for moderate acute malnutrition
- Vitamin A for treatment of measles
- Artemisinin compounds for malaria treatment

**CHILDHOOD-TREATMENT**
- CHW provision of FP, including injectables
- Postabortion FP
- Social Marketing
- Mobile outreach service delivery

**FAMILY PLANNING**
- CHW provision of FP, including injectables
- Postabortion FP
- Social Marketing
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Community-Based Maternal Health Interventions

- Intermittent preventative treatment for malaria in pregnancy
- Calcium supplementation for preeclampsia
- Magnesium sulfate for eclampsia
Malaria in Pregnancy

Malaria presents health risks for the woman, fetus and newborn

WHO recommends a three-pronged approach to address malaria in pregnancy:
1. Insecticide-treated bed nets (ITN)
2. Intermittent preventative treatment in pregnancy (IPTp)
3. Case management of malarial illness
Intermittent Preventative Treatment in Pregnancy (IPTp)

- IPTp includes a full course of antimalarial medicine as part of routine prenatal care as early as possible in the second trimester.
- IPTp has been shown to decrease cases of malaria in pregnancy and to reduce maternal and fetal anemia, low birth weight and neonatal mortality.
IPTp-SP

- Ideally, women should receive at least three doses of sulfadoxine-pyrimethamine (SP) during pregnancy
- SP should be administered as directly observed therapy (DOTs)
- Doses should be given at least one month apart
Community-Based IPTp and ITNs in Nigeria (Orobaton et al, 2016)

- House-to-house distribution of SP to all eligible pregnant women
- SP administered by DOTs by community health workers (CHWs)
- Added intervention and support to system of CHWs already in operation
- Every CHW linked to a health facility for supply and supervision
- CHW promoted antenatal care visits (ANC) along with SP administration
- SP doses were tracked by CHW and by woman herself
- Community-based IPTp increased SP coverage and ANC visits
Preeclampsia and Eclampsia

- 2\textsuperscript{nd} leading cause of maternal death globally
- Rapid increase of blood pressure and presence of protein in urine during pregnancy (preeclampsia)
- Causes dizziness, headaches and swelling
- If untreated, can lead to seizures ( eclampsia), organ failure and death
Calcium Supplementation

In areas where dietary calcium intake is low, WHO recommends calcium supplementation during pregnancy (at doses of 1.5–2.0 g elemental calcium/day) for the prevention of pre-eclampsia in all women

• Especially those at high risk of developing pre-eclampsia
• Reduces risk of pre-eclampsia by 40-70%
• Should complement efforts to improve nutrition
Community-Based Calcium Supplementation in Kenya (Martin et al, 2016)

- No known national program to incorporate calcium supplementation into antenatal care
- Colleagues in Western Kenya conducted implementation research to learn from iron and folic acid supplementation
- Formative research to design community-based intervention
Community-Based Calcium Supplementation in Kenya (Martin et al, 2016)

• Training on anemia, preeclampsia, danger signs in pregnancy and the importance of ANC visits
• Provide credentials to CHWs and materials to help foster dialogue
• Rather than informing on risks of preeclampsia and eclampsia, focus on the preventive benefits of calcium
Magnesium Sulfate

• WHO recommends magnesium sulfate recommended for the prevention and treatment of eclampsia in preference to other anticonvulsants
• For settings where it is not possible to administer the full magnesium sulfate regimen, the use of a magnesium sulfate loading dose followed by immediate transfer to a higher level health-care facility is recommended
Community-Based Magnesium Sulfate in India (Ramadurg et al, 2016)

- Conducting focus groups with CHWs to better understand knowledge and experiences (ASHA, ANMs and staff nurses)
- Found some knowledge of link between hypertension and eclampsia, but also found several misconceptions
- CHWs can and want to administer life-saving medications, but more training is needed
- Strong referral and emergency transport systems are critical
Community-Based Service Delivery

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- **BIRTH**
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  - Chlorhexidine umbilical cord treatment
  - Thermal care
  - Antibiotics for neonatal sepsis

- **NEONATAL**
  - Education and provision of complementary foods
  - Vitamin A supplementation
  - Zinc supplementation
  - Immunization for vaccine-preventable diseases
  - Oral or parenteral rehydration
  - Hand washing with soap
  - Safe disposal of children’s stools
  - Use of insecticide-treated nets or indoor residual spraying

- **CHILDHOOD-PREVENTION**
  - Oral rehydration solution for childhood diarrhea
  - Zinc for treatment of diarrhea
  - Antibiotics for dysentery
  - Oral antibiotics for pneumonia
  - Treatment for moderate acute malnutrition
  - Vitamin A for treatment of measles
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**FAMILY PLANNING**

Maternal Health Task Force
Discussion Questions

• What experience have you had working to introduce any of these community-based maternal health interventions in your country?
  • IPTp
  • Calcium supplementation
  • Magnesium sulfate
• What are the gaps you face related to implementation?
• What are the gaps you face related to learning and research?
Thank you!

Jacquelyn Caglia, MPH
jcaglia@hsph.harvard.edu
www.mhtf.org

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Key Readings

- **Lancet maternal health series, 2016**
- **WHO policy brief for the implementation of intermittent preventive treatment of malaria in pregnancy using sulfadoxine-pyrimethamine (IPTp-SP)**
- **Scaling-up the use of sulfadoxine-pyrimethamine for the preventive treatment of malaria in pregnancy: results and lessons on scalability, costs and programme impact from three local government areas in Sokoto State, Nigeria**
- **Translating formative research findings into a behaviour change strategy to promote antenatal calcium and iron and folic acid supplementation in western Kenya**
- **Community health worker knowledge and management of pre-eclampsia in rural Karnataka State, India**